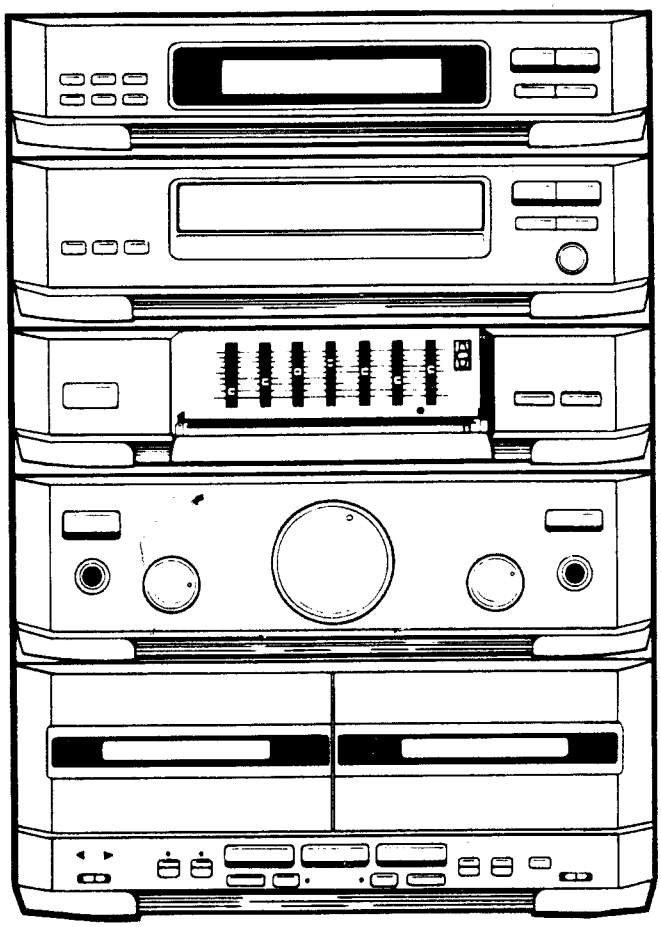
AC-MX105

AKAI SERVICE MANUAL



COMPACT disc DIGITAL AUDIO

MINI COMPONENT SYSTEM

AC-MX105
AC-MX370

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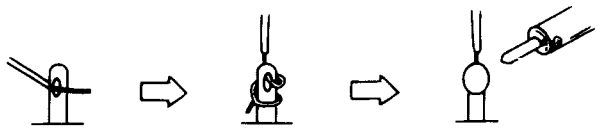
☆ SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts identifide by the ⚠ (*) symbol parts are critical for safety. Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.
   These must also be replaced only with specifide replacements.
   Examples:RF converters, tuner units, antenna select-switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers(insulating barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing micro switches
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Make sure that wires to do not contact heat producing parts (heat sinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Make sure that foreign objects (screws, solder droplets, etc,) do not remain inside the set.

MAKE YOUR CONTRIBUTION TO PROTECT THE ENVIRONMENT

Used batteries with the ISO symbol for recycling as well as small accumulators (rechargeable batteries), mini-batteries (cells) ans starter batteries should not be thrown into the garbage can.
Please leave them at an appropriate depot. All other household batteries can be thrown out with the household waste.

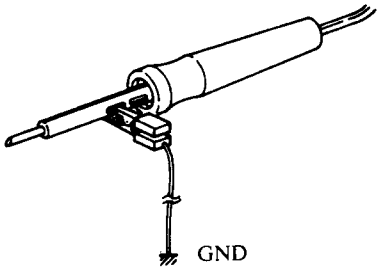
SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit.
The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal input/output connectors, etc.) and the earth ground through a resister of 1500 ohms paralleled with a 0.15μF capacitor, under the unit's normal working conditions.
The leakage-current should be less than 0.5mA rms AC.
The resistance measurement should be done between accesible exposed metal parts ans power cord plug prongs with the power switch (if included) "ON". The resistance should be more than 2.2M Ohms.

PRECAUTIONS IN REPAIRING

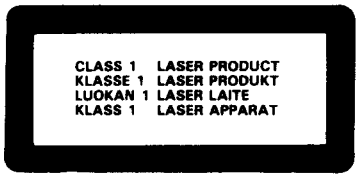
When repairing or adjusting the unit, please note the following points.

1. Do not put excessive pressure on the mechanical part (operation part), including the pick-up block, as extremely high mechanical precision is required in these parts.
2. When the base is removed for repair or adjustment, make sure that there are no metal obiects in the narrow gap between the P.C board or the mecha parts and the base
3. The Micro-Computer and the CD signal processing ICs can be damaged by static electricity or leakage from a soldering iron during repairing. While soldering, please take the procautions against leakage as in the illustration.

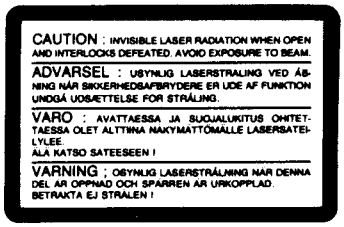


4. Do not loosen any screws in the pick-up block.
   When handing the pick-up block, please refer to the points to NOTE when replacing the pick up block.
5. To avoid hazardous invisible Laser Radiation, DO NOT look at the Laser Beam (Objective lens) directly.
6. On models for some countries, laser warning labels are affixed on the unit and inside of the unit, as shown below. For your safety, read these labels carefully when repairing or adjusting the unit.

[EUROPE, SCANDINAVIA, UK and AUSTRALIA]



Label affixed on the rear panel of the unit


CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRALING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARO : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NAKYMATTOMALLE LASERSATEILYLEE.
ALA KATSO SATEESEEN !
VARNING : OSYNLIG LASERSTRÅLNING NAR DENNA DEL AR OPPNAD OCH SPARREN AR URKOPPLAD.
BETRAKTA EJ STRALEN !

Label affixed on the reverse side of the rear panel of the unit

☆INFORMATIONS

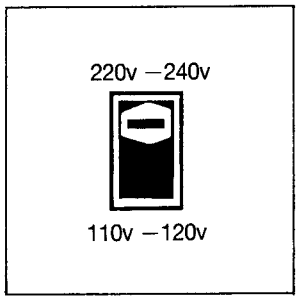
SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below.

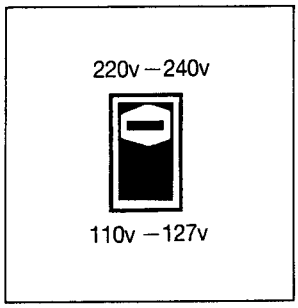
Symbol	Prinncipal Destination
A	USA
B	UK
E	Europe(except, UK)
S	Australia
V	Germany
U	Universal
Y*	Custom version

VOLTAGE CONVERSION (U Y Model only)

Before connecting the power cord, set the VOLTAGE SELECTOR located on the rear panel of the MX105 so that the correct voltage for your area is indicated.



[U, Y_1, Y_2]



[Y_3, Y_4, Y_7]

SPECIFICATIONS

[Tuner Section]

Frequency range

FM	87.5-108MHz(50KHz step)
MW	531-1602KHZ(9KHz step) [E/V/S/B/U5/Y1/Y3/Y7]
	530-1610KHz(10KHz step) [U8/Y2/Y4]
LW	146-281KHZ(1KHz step)
SW	3.8-12.5MHz(5KHz step)

Sensitivity

FM	3μ V(IHF, THD 3%) [EXCEPT V]
	5μ V(IHF, THD 3%) [V]
MW	700μ V(IHF, THD 10%)
LW	1500μ V(IHF, THD 10%)
SW	30μ V(IHF, THD 10%)

S/N ratio(IHF)

FM	MONO:70dB
	Stereo:65dB
MW	40dB
LW	30dB
SW	30dB

Total Harmonic distortion(at 1KHz)

FM	MONO:0.8%
	Stereo:1.0%
MW	1.0%
LW	1.0%
SW	2.0%

Stereo seperation ..... 35dB(at 1KHz)

[Graphic Equlizer]

Center frequency	63Hz/160Hz/400Hz/1KHz
	2.5KHz/6.3KHz/16KHz
Control range	±10dB

[CD Section]

Pick up system	3 Beam laser
Sampling frequency	44.1KHz
Error correction system	Cross interleave reed solomon
Number of channels	2 Channel
Frequency response	20Hz~20KHz
S/N ratio	90dB
Wow & flutter	Below measurable limits
Total harmonic distortion	0.07% (at 1KHz)
Channel seperation	85dB (at 1KHz)
Dynamic range	85dB (at 1KHz)

SPECIFICATIONS

[AMPLIFIER Section]

Power output ..... 30w+30w(6 ohm, 1KHz, 10% THD, EIAJ)
Total harmonic distortion ..... 0.05%(−10dB for RMS)
Input sensitivity
  Phono ..... 5mV/47k ohms
  VCR ..... 400mV/47k ohms
S/N ratio
  Phono 55dB
  VCR 70dB
Channel seperation 55dB

[Deck section]

Track system ..... 4 track, 2 channel system
Frequency response ..... 100-12,500Hz ±3dB(Normal tape)
100-14,000Hz ± 3dB(CrO_2 tape)
Wow & Flutter ..... 0.2%(WRMS)
S/N ratio (CCIR/ARM) ..... 62dB(DOLBY ON, CrO_2 tape)
52dB(DOLBY OFF, Normal Tape)
Total harmonic distortion ..... 1.0%(Normal tape, at 400Hz)
Channel seperation 35dB

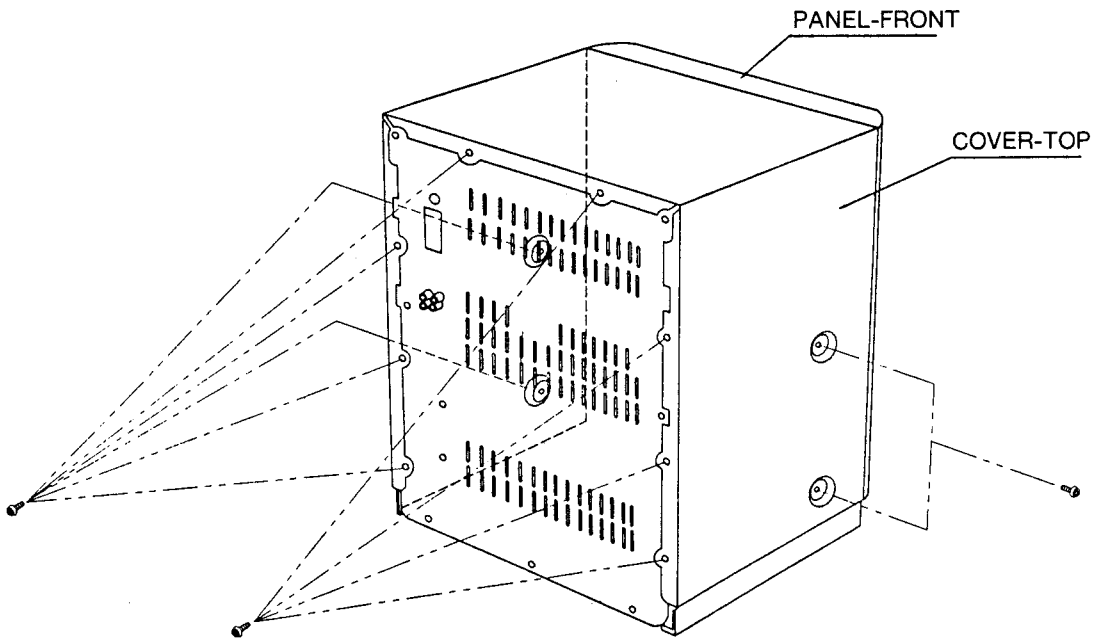
[General]

Power requirement
  E/V ..... AC 230V/50Hz
  B/S ..... AC 240V/50Hz
  $U_5/U_8/Y_1/Y_2$ ..... AC 110-120V/220-240V, 50/60Hz
  $Y_3/Y_4/Y_7$ ..... AC 110-127V/220-240V, 50/60Hz
Demension ..... 270(W)×387(H)×260(D)mm
Weight 8.8Kg
Power consumption ..... 99W(E/V/S/B/$Y_3/Y_4/Y_7$)
141W($Y_1/Y_2/U_5/U_8$)

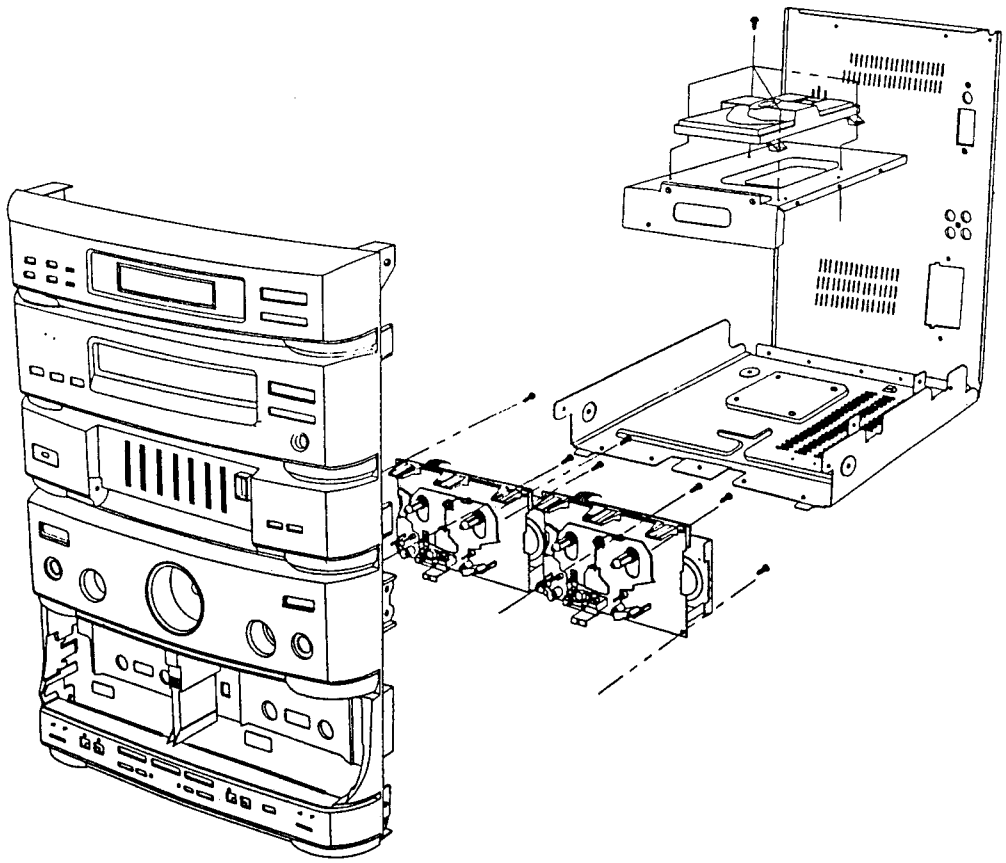
* For improvement purposes, specifications and design are subject to change without notice.

I. DISASSEMBLY

1. REMOVAL OF COVER-TOP

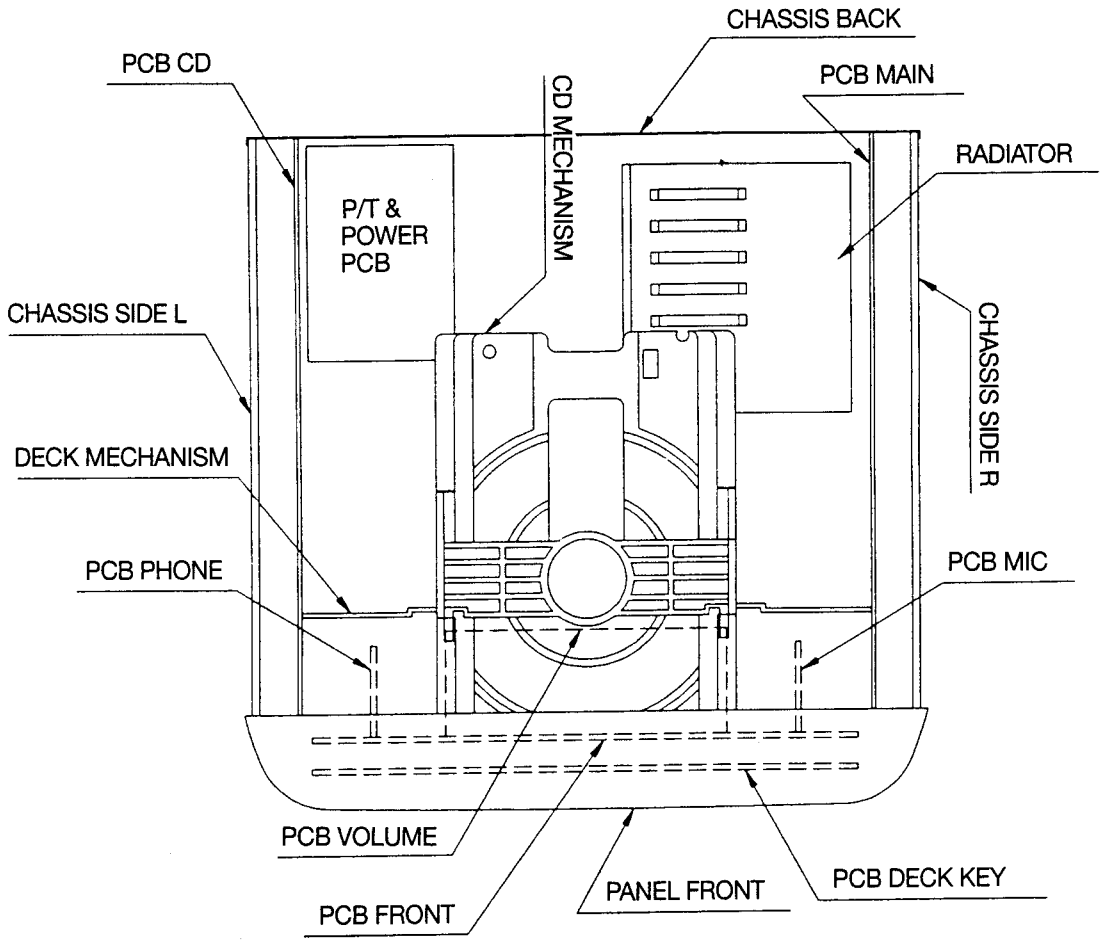


2. REMOVAL OF CD MECHA & CASSETTE DECK MECHA



II. PRINCIPAL PARTS LOCATION

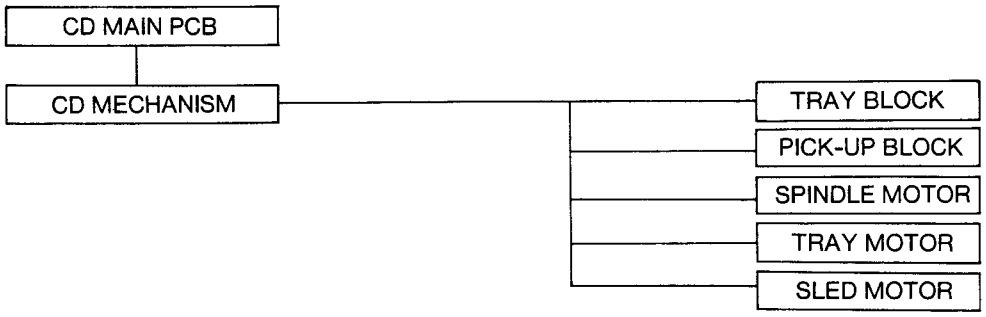
3. REMOVAL OF CASSETTE DECK MECHA



III. REPLACEMENT OF PRINCIPAL MECHANICAL PARTS

1. CD MECHANISM

1-1. DISMANTLING PROCEDURE OF THE COMPONENTS



1-2. REMOVAL OF THE CD MAIN PCB

1) Disconnect the four connectors carefully (These are on the front PCB. fig 3-1. P26~P29).

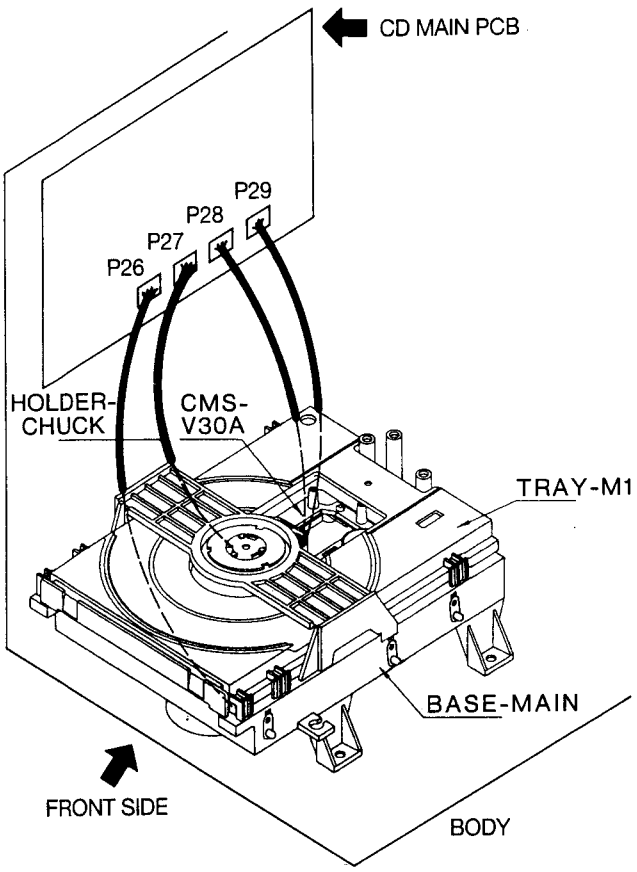


FIG. 3-1

1-3. REMOVAL OF THE CD MECHANISM

1) Remove the four retaining screws, then remove the CD mecha. unit (fig 3-2)

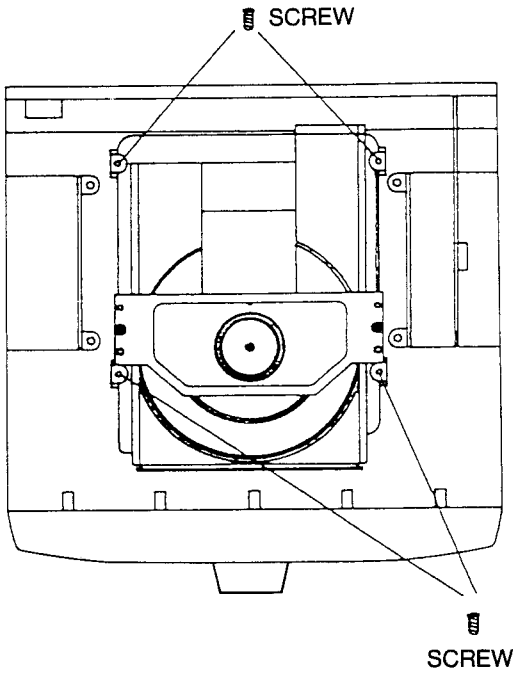


FIG. 3-2

1-4. REMOVAL OF THE TRAY BLOCK

1) Remove the four retaining screws for clamper and tray. (fig. 3-3)

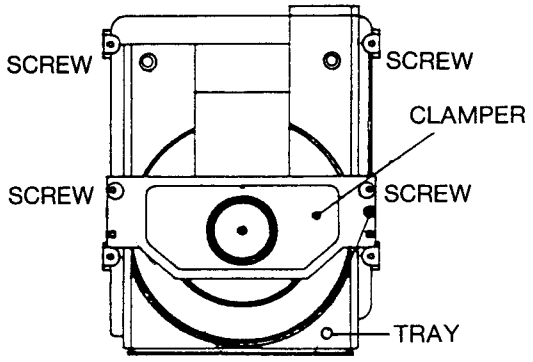


FIG. 3-3

2) Slide the bracket in the direction of the arrow (fig. 3-4)

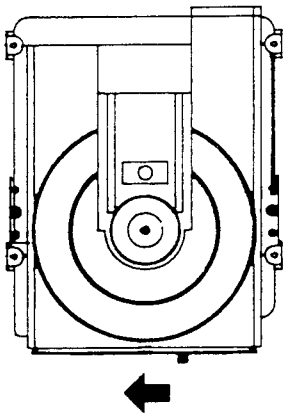


FIG. 3-4

3) Pull out the tray ass'y slowly in the direction of the arrow (fig. 3-5)

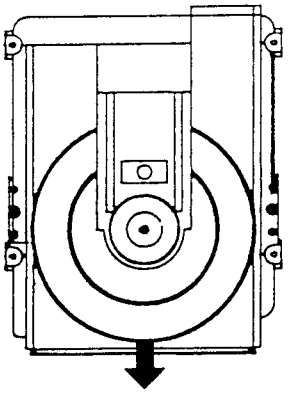


FIG. 3-5

4) Remove the tray block.

1-5. REPLACEMENT OF THE TRAY MOTOR

1) Remove the tray-belt
2) Unsolder the lead wires and PCB of the tran-motor with a soldering-iron.
3) Remove the tray-motor retaining screws.
4) Remove and replace the tray-motor.
5) Reassemble in the reverse order.

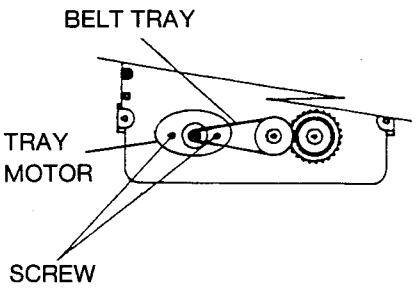


FIG. 3-6

1-6. REPLACEMENT OF THE SLED-MOTOR & REPLACEMENT OF THE SPINDLE -MOTOR

- Remove the four SHAFT CD and the four RUBBER CD for ASS'Y-MECHA FEED.
- Replacement of the spindle-motor and sled-motor itself is not recommended, because the adjustment of the turn table height is quite critical and necessitating the use of a special jig.
- Therfore, when need to replace the spindle-motor, please replace with a ASS'Y-MECHA FEED. (CD MECHA;CMS-V30A:ADCD-00110-031)

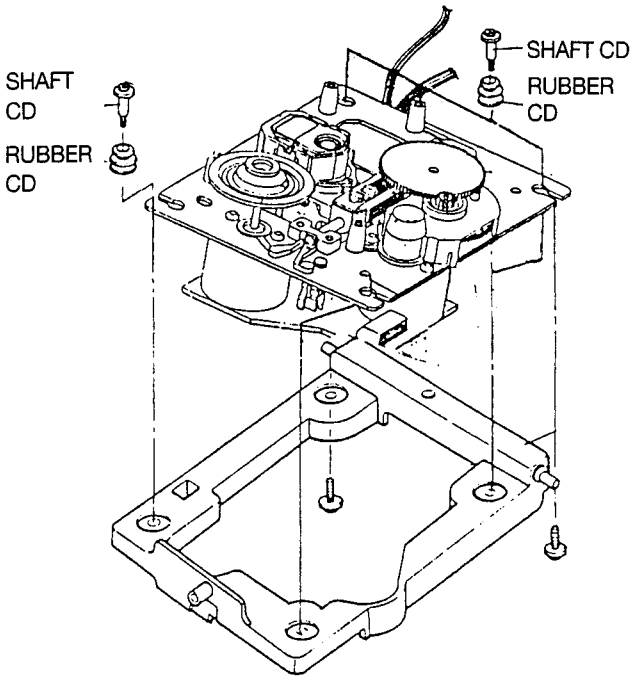
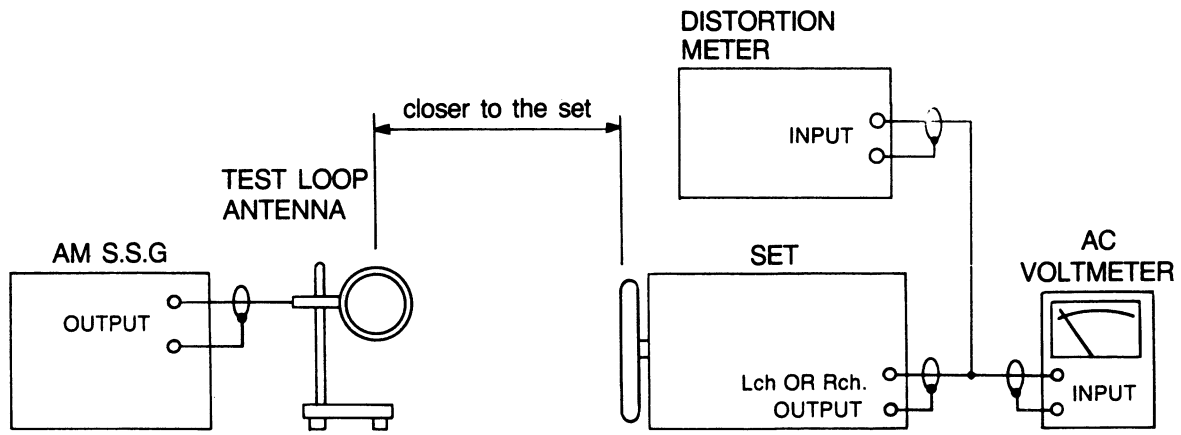


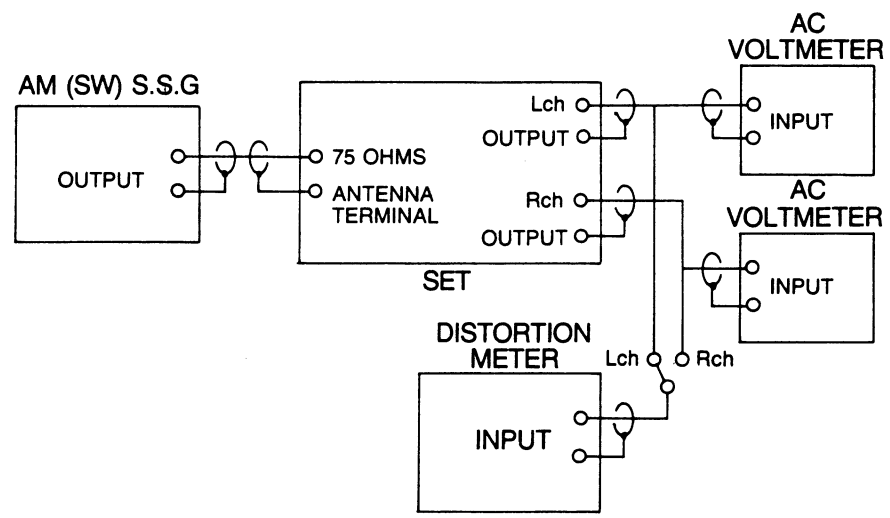
FIG. 3-7

V. ELECTRICAL ADJUSTMENT

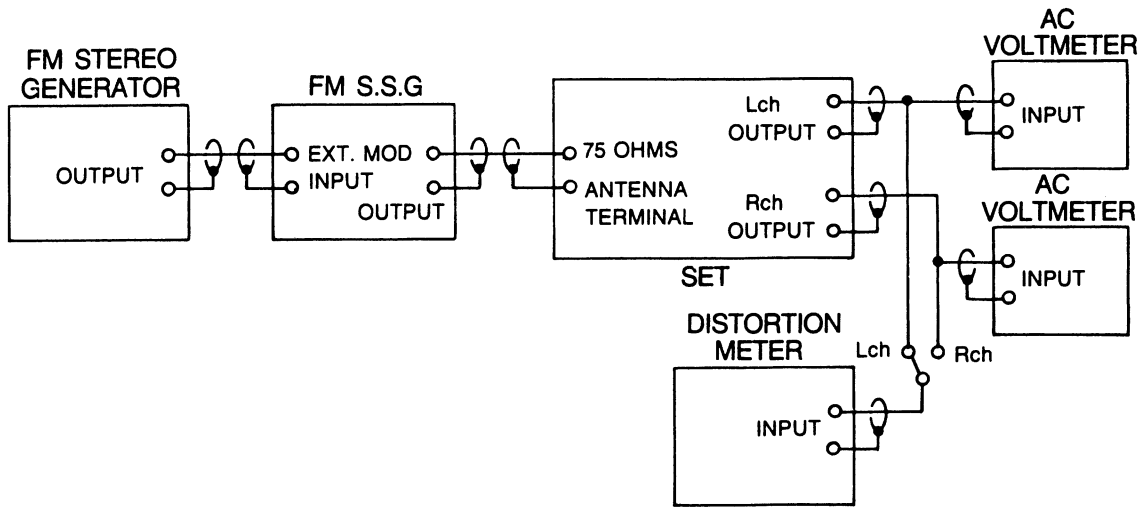
1. TUNER INSTRUMENT CONNECTIONS



Instrument connection for AM (MW, LW) section adjustment



Instrument connection for AM (SW) section adjustment



Instrument connection for FM section adjustment

2. TUNER ELECTRICAL ADJUSTMENT

AM

NOTE: Set the S.S.G to 1kHz 30% modulation on each adjustment.

2 AM(MW) SENSITIVITY

1. 603kHz, 60dBμ (Low) or 1,404kHz, 60dBμ (High)
2. 603kHz(Low), PRESET 7 ch
   1,404kHz(High), PRESET 9 ch
3. T101(Low), VC101(High)
4. ● Connect the milli-voltmeter to LINE OUT. (TP201)
   ∗ Maximum output level.
   ∗ For best result, repeat Low a High adjustments several times.

1 AM(MW) OSC

1. —
2. 531kHz(PRESET 6 ch)
3. T103
4. ● Connect the Digital DC Voltmeter between JW109 and GND.
   ∗ 1.0 + 0.1V

3 AM IF

1. 603kHz, 74dBμ
2. 603kHz
3. T106
4. ● Connect the milli-voltmeter to LINE OUT. (TP201)
   ∗ Maximum output level.

4 TUNING LED

1. 603kHz, 65dB
2. 603kHz
3. TUNED Indicator on the front panel, SV101
4. ∗ TUNED Indicator

LW (SW)

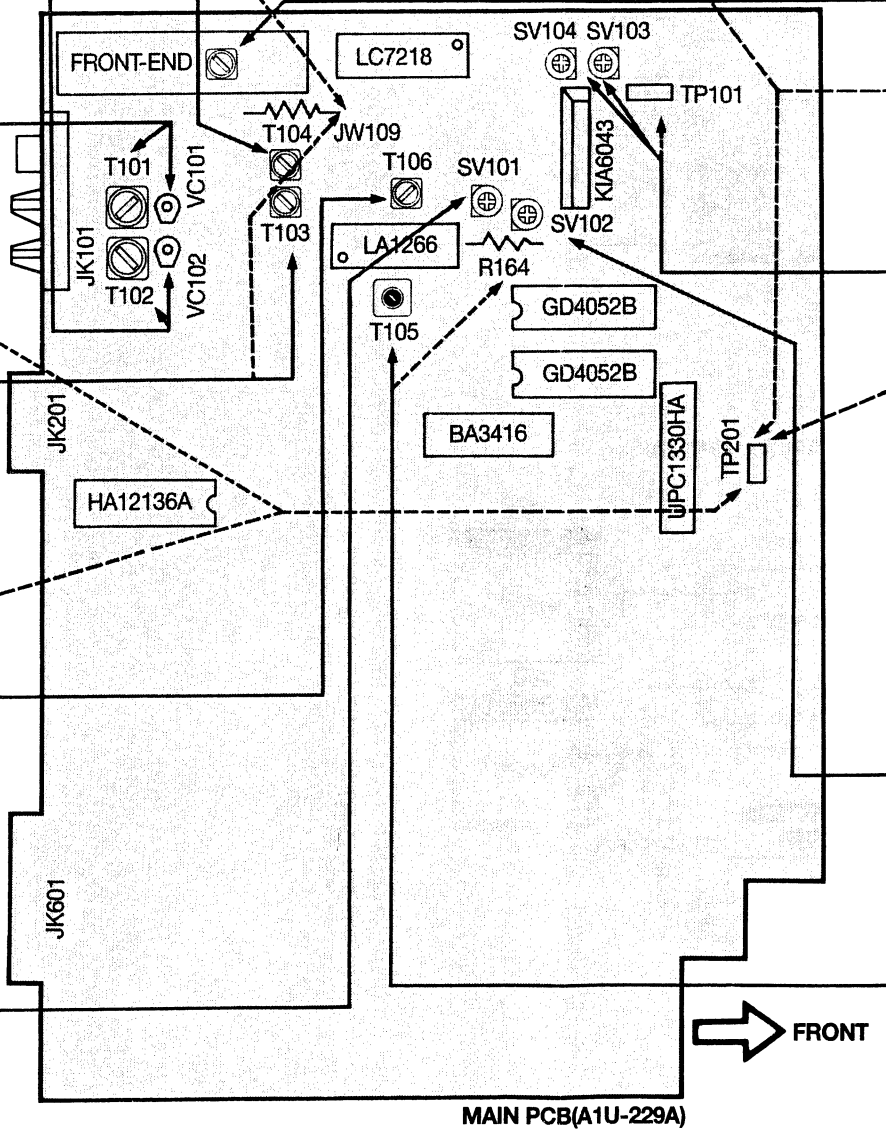
NOTE:1. Set the S.S.G. to 1kHz 30% modulation on each adjustment.
2. Frequencies indicated in < > are for the SW model.

1 LW (SW) OSC

1. —
2. 146kHz <3.8MHz> (preset 11ch) <11ch>
3. T104
4. ● Connect the Digital DC Voltmeter between JW109 and GND.
   ∗ 1.0 ± 0.1V <0.85 ± 0.1V>

2 LW (SW) SENSITIVITY

1. LOW-160KHz, 70dBμ <4MHz, 35dBμ >
   High-260KHz, 70dBμ <12MHz, 35dBμ >
2. LOW-160KHz PRESET 12ch <4MHz 12ch>
   High-260KHz PRESET 14ch <12MHz 12ch>
3. T102(LOW), VC102(High)
4. ● Connect the milli-voltmeter to LINE OUT. (TP201)
   ∗ Maximum output level
   ∗ For best result, repeat Low and High adjustment several times.



NOTE:1.Set the S.S.G. to 1kHz, 75kHz deviation for [U], [S], [B], [Y], [V2] or [E] model, 1kHz, 40kHz deviation for [V] model.

STEP	ADJUSTMENT ITEM
1.	SSG FREQ. & OUTPUT LEVEL
2.	SET Tuning FREQ.
3.	ADJ. Part
4.	REMARKs(●) & RESULT(∗)

Test Point — Adjustment Part

FM

3 DISTORTION(STEREO)

1 .98.0MHz, 60dB(STEREO L or R channel only)
2. 98.0MHz
3.I FT (FRONT END)
4. ● Connect the distortion meter to LINE OUT, (TP201)
   ∗ Minimum Distortion

4 STEREO SEPARATION

1. 98MHz, 60dBμ V Mono
2. SET:FM AUTO SV103
   ● Connect a frequency Counter to TP101
   ∗ 76KHz
3. 98.0MHz, 60dBμ (STEREO L or R channel only)
4. 98.0MHz PRESET 3ch
5. SV104
6. ● Connect the milli-voltmeter to LINE OUT. (TP201)
   ∗ Minimum output level for opposite channel.

2 TUNING LED

1. 98.0MHz, 22dBμ (MONO)
2. 98.0MHz
3. TUNED Indicator on the front panel, SV102
4. ∗ TUNED Indicator is lit.

1 CENTER VOLTAGE

1. 98.0MHz, 60dBμ (MONO)
2. 98.0MHz PRESET 3ch
3. T105
4. ● Connect the DC Digital Voltmeter to both ends of R164. ∗ 0 + 50mV

3. CD ELECTRICAL ADJUSTMENT

STEP ADJUSTMENT

1. TEST DISC
2. MODE
3. TEST POINT and ADJUSTMENT parts.
4. REMARK(●), RESULT(∗)

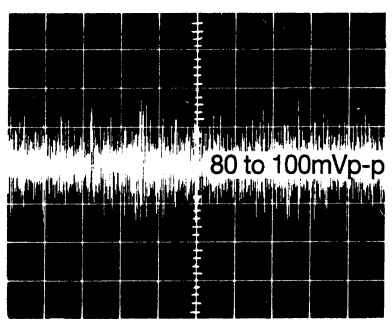
Test point — ADJ. part

1 VCO

1. –
2. STOP
3. TP901/VR905
4. ● SHORT the TP903 (2P connector)
   ● Connect a frequency counter to the TP901
   ∗ 4.40MHz ± 10KHz

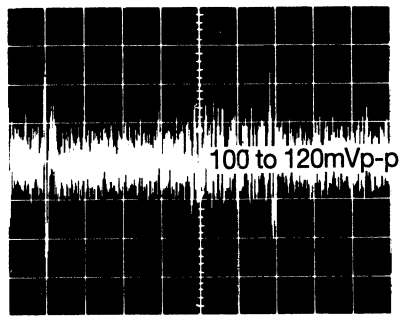
4 TRACKING SERVO GAIN

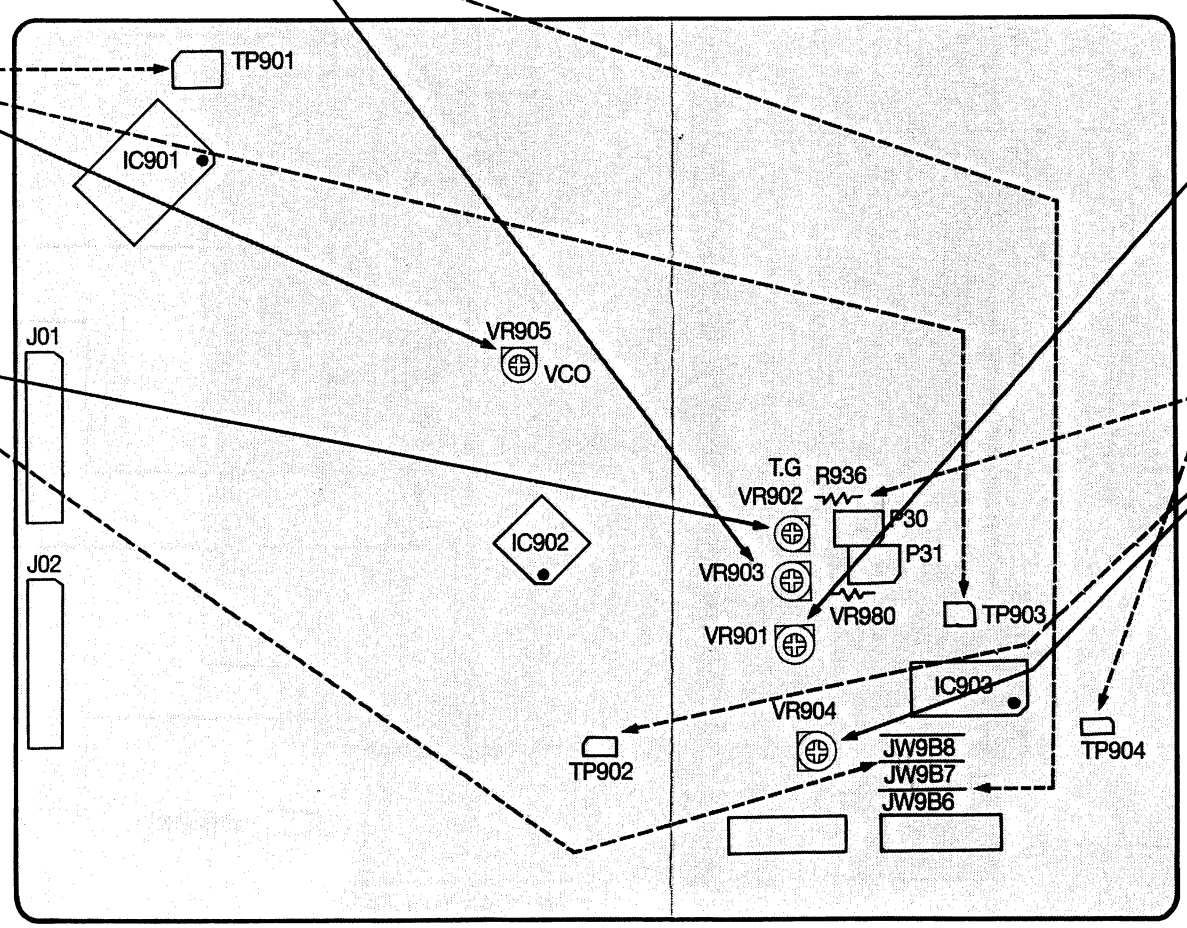
1. Test disc A-BEX TCD-781
2. PLAY
3. JW9B7/VR902
4. ● Connect an oscilloscope to the JW9B7
   ∗ 80 to 100mVp-p



3 FOCUS SERVO GAIN

1. Test disc A-BEX TCD-781
2. PLAY
3. JW9B6/VR903
4. ● Connect an oscilloscope to the JW9B6
   ∗ 100 to 120mVp-p



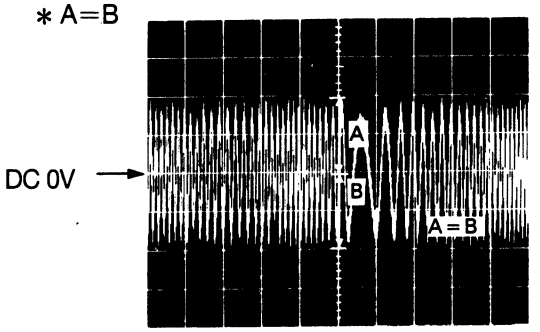


5 FOCUS OFF-SET

1. Test disc A-BEX TCD-781
2. PLAY
3. TP904/VR901
4. ● Connect a osilloscope to the TP904 and check the LEVEL , then adjust the VR901 so that the oscilloscope Level is MAX

2 E-F BALANCE

1. Test disc A-BEX TCD-781
2. PLAY
3. R936/VR904
4. ● Connect an oscilloscope to the R936.
   Then SHORT the TP902. (2P connector)
   ∗ A=B



〈TOP VIEW〉
CD P.C BOARD (A2U-115)

4. CASSETTE DECK ELECTRICAL ADJUSTMENT

[PRECAUTIONS BEFORE ADJUSTMENT]

1. Before adjustment, clean and de-magnetize the heads and tape guides.
2. Set the Dolby NR switch off.
3. Use the following recording test tapes.
   NORMAL position : TDK AC-224
   CrO_2 position : TDK AC-513
4. LINE OUT=TP301

STEP ADJUSTMENT

1. TEST TAPE/INPUT SIGNAL
2. MODE
3. CHECK POINT, ADJUSTMENT PART
4. REMARKS(●) and RESULT(∗)

Adjustment Part — Test Point

3 HEAD AZIMUTH ALIGNMENT (TAPE Ⅰ & Ⅱ)

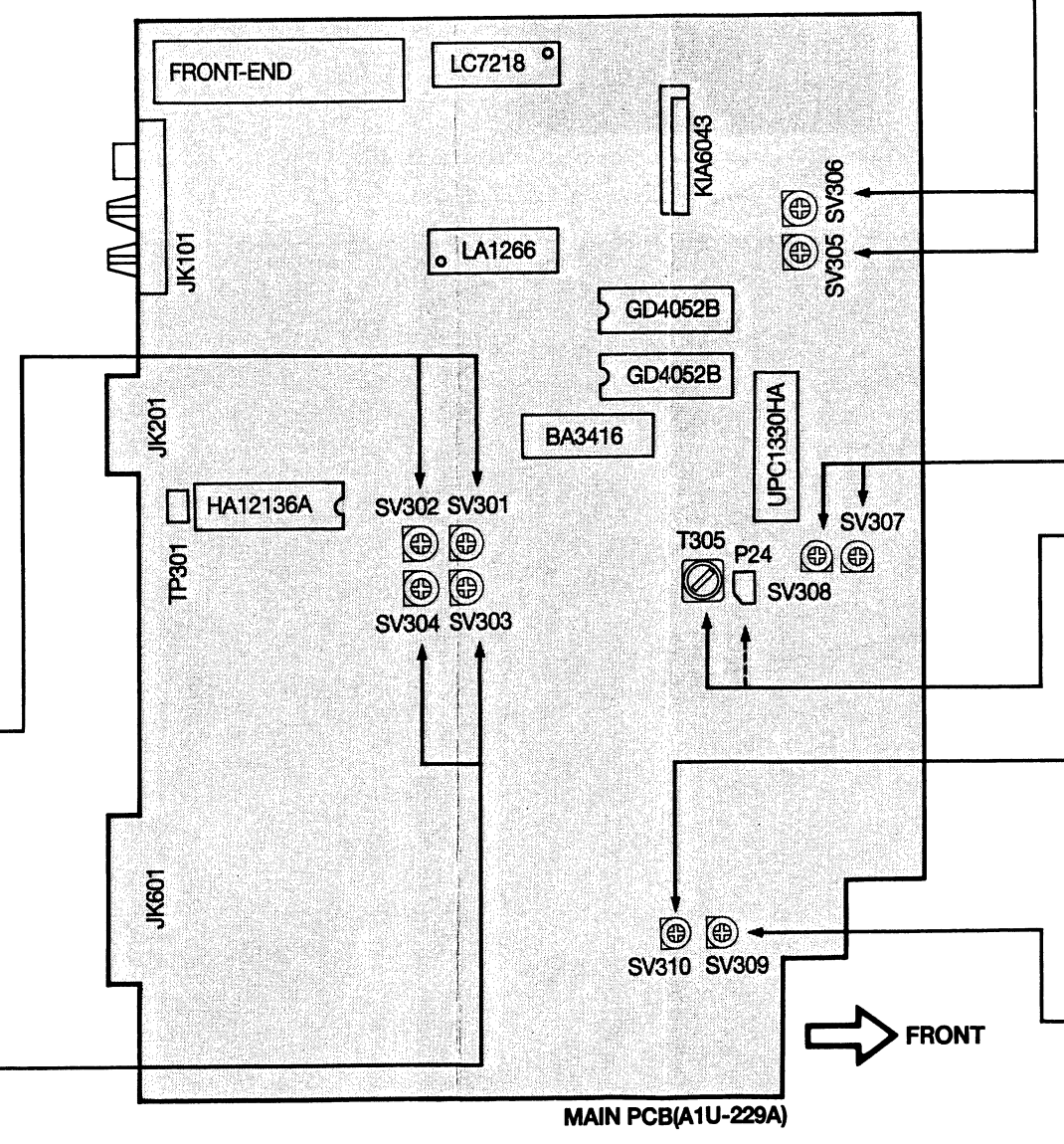
1. 10KHz-15VU test tape (MTT-357G)
2. PLAY
3. LINE OUT, HEAD AZIMUTH ALIGNMENT SCREW (refer to the page 12)
4. ● Connect an AC milli-voltmeter to LINE OUT.
   ∗ Maximum output level.

4 TAPE Ⅰ PB LEVEL

1. 400Hz test tape(MTT-150)
2. PLAY
3. LINE OUT SV301(L-ch), SV302(R-ch).
4. ● Connect AC milli-voltmete to LINE OUT.
   ∗ 580mV (−2.5dBs)

5 TAPE Ⅱ PB LEVEL

1. 400Hz test tape(MTT-150)
2. PLAY
3. LINE OUT SV303(L-ch), SV304(R-ch).
4. ● Connect AC milli-voltmete to LINE OUT.
   ∗ 580mV (−2.5dBs)



7 RECORDING LEVEL

1. NORMAL tape(AC-224), AUX, 1KHZ input, −6dBs(LINE OUT)
2. REC`→ PLAY
3. LINE OUT, SV305(L-ch)/SV306(R-ch)
4. ● Connect an AC milli-voltmeter to LINE OUT.
   ∗ −6dBs(±1dB)

8 NORMAL POSITION BIAS

1. 1KHz and 10KHz, 26dBs(LINE OUT) NORMAL recording test tape(AC-224)
2. REC`→ PLAY
3. LINE OUT, SV307(L), SV308(R)
4. ● Connect an AC milli-voltmeter to LINE OUT.
   ∗ Playback levels of 1KHz and 10KHz are equal or within ±1.0dB

6 BIAS OSC FREQUENCY

1. No signal input, CrO2 recording test tape. (AC-513)
2. REC
3. P24, T305
4. ● Connect a frequency counter between P24 Signal and GND.
   ∗ 100 ± 5KHz

2 TAPE Ⅰ NORMAL(×1) SPEED

1. 3,000Hz test tape (MTT-111DN)
2. PLAY
3. LINE OUT, SV310
4. ● Connect a frequency counter to LINE OUT
   ∗ 3,000 ± 10Hz

1 TAPE Ⅰ HIGH(×2) SPEED

1. 3,000Hz test tape (MTT-111DN)
2. TAPE Ⅰ PLAY, TAPE Ⅱ REC, (×2 Dubbing START button)
3. LINE OUT, SV309
4. ● Connect a frequency counter to LINE OUT
   ∗ 6,000 ± 20Hz

VI. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list Part No, Model No. and the description of eachpart. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

[NOTE]

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.

WARNING

⚠ (*) INDICATED SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

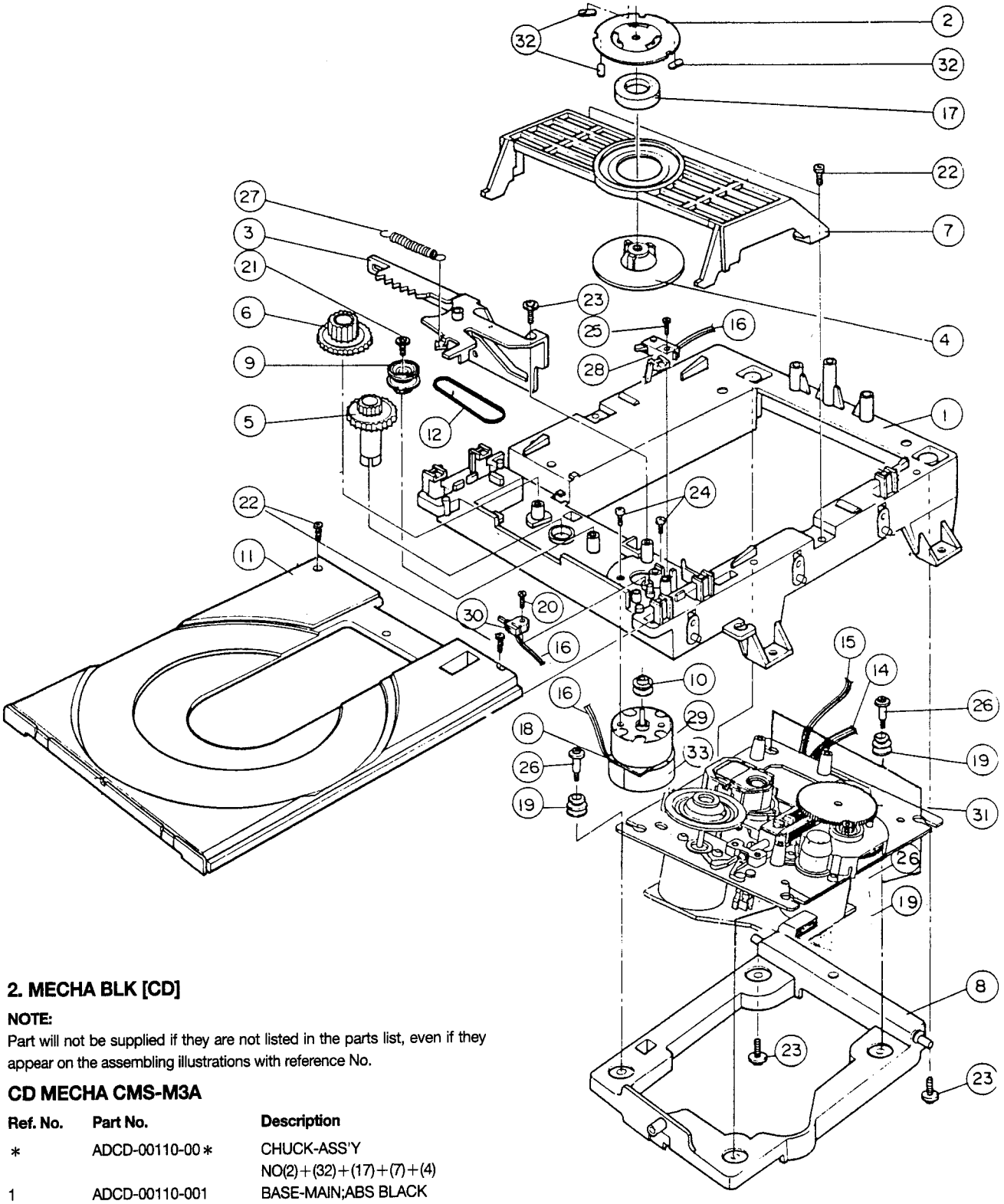
AVERTISSEMENT

⚠ (*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉDE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LÉ FABRICANT.

1. RECOMMEND SPARE PARTS

We suggest you to stock the following Recommended Spare Part items listed below since they can cover most of the routine service

Ref. No.	Part No.	Description
1	* ACAC-00053-000	CORD-AC (U, Y_1, Y_2) KP700A, YH396-03V, YT396
2	* ACAC-00063-000	CORD-AC (E, V, Y_3, Y_4, Y_7) KKP-419C YH-396-03A YT-396
3	* ACAC-00083-000	CORD-AC (S) KKP-560 YH-396-03A YT-396
4	* ACAC-00093-000	CORD-AC (B) CW3102 YH-396-03A YT-396
5	BTBP-00011-BPM	FILTER-MICA PRINT BPMB6A 88-108MHz
6	BTCE-00050-004	FILTER-CERAMIC SFU 450B
7	BTCE-00060-107	FILTER-CERAMIC SFE 10.7MS3G-A
8	BTCE-00152-107	FILTER-CERAMIC SFE 10.7MJA10H-A FTZ
9	* CACS-U472M-039	CAPACITOR AC DE7150F472MVA1-KC 400V
10	* CACS-U472M-084	CAPACITOR AC (B) S 400V SCF2G472M12BS M
11	DDMR-00191-T11	DIODE-RECTIFIER M DO-16 GP20-02A (200V 2A)
12	DDMR-00210-T11	DIODE-RECTIFIER M DO-20 1N5402S (200V 3A)
13	DDTR-00040-T10	DIODE-RECTIFIER T DO-41 1N4004 (400V 1A)
14	DDTS-00030-SO0	DIOSE-SI T DO-40 1S2471 (80V 0.12A)
15	DDTS-00060-SO0	DIODE-SI T DO-40 1SS131 (90V 0.13A)
16	DDTS-00100-SO0	DIODE-SI T DO-40 1SS135 (35V 0.1A)
17	DDTZ-G056B-SO0	DIODE ZENER T DO40 MTZ5.6B 5.45-5.73
18	DDTZ-G075B-SO0	DIODE ZENER T DO40 MTZ7.5B 7.07-7.45
19	DDTZ-G082C-SO0	DIODE ZENER T DO40 MTZ8.2C 8.03-8.45
20	DDTZ-G091B-SO0	DIODE ZENER T DO40 MTZ9.1B 9.01
21	DDTZ-G120B-SO0	DIODE ZENER T DO40 MTZ12B 11.44-12.03
22	DECA-00340-00M	MECHA CASSETTE CWA414RR
23	DECD-00110-00F	MECHA CDP CMS-M3A
24	DPLA-00210-YTL	LAMP SL425-012110PL 110mA 12V
25	DPLC-00200-00T	DISPLAY-LCD TUNER+CDP LE-0716AP
26	DPLT-00073-VC3	DOT-LED SLR-34VC3 RED R3 TAPPING
27	DPLT-00073-YC3	DOT-LED SLR-34YC3 YEL R3 TAPPING
28	DPLT-00141-YC5	DOT-LED DLY-503T YEL R5 N
29	ESRY-00120-12U	RELAY JS1-12V/AJS1311
30	ESRY-00130-121	RELAY JW2ASN-DC 12V 2POLE
31	* FGFB-S1252-137	FUSE GLASS FST034. 3118 250V T1.25A
32	ICCM-00170-SQ0	IC 4CH MUX/DEMUX DIP16 GD4052B
33	ICCM-20380-S10	IC PLL DIP24S LC7218
34	ICCM-20501-S30	IC CMOS DIP16 TC4094B
35	ICDG-00370-S20	IC TAPE SELECTOR SIP9 μ PD1330HA
36	ICDG-00590-SE0	IC 16BIT D/A CONVERT DIP20 KDA0316
37	ICDG-00870-SE0	IC SIGNAL PROCESSOR QFP80 KS9210
38	* ICHP-00070-S10	IC HYBRID AMP-POWER SIP18 STK4142 Ⅱ 25W×2
39	ICHY-00140-SB0	IC REMOTE RECEIVER RPM-676CBR-L
40	ICLN-00070-SD0	IC PLL FM MPX SIP 9 KIA7343P
41	ICLN-00220-S10	IC FM/AM IF+DET DIP22S LA1265
42	ICLN-00540-SO0	IC 2CH PRE AMP DIP16 BA3416BL
43	ICLN-00681-SA0	IC DOLBY B DIP16 HA12136A
44	ICLN-00710-S90	IC 7BAND EQ DIP20 M5229P
45	ICLN-01330-SE0	IC SIGNAL PROCESSOR FQP48 KA8309
46	ICLN-01340-SE0	IC RF AMP FOR CDP SOP30 KA9201D
47	ICMP-00730-SA0	IC UCOMPUTER QFP100 HD404629 TUNER
48	ICMP-00740-SA0	IC UCOMPUTER QFP64 HMCS408 DECK
49	ICOP-00130-SE0	IC DUAL OP AMP SIP 9 KA4558S
50	ICOP-00131-SE0	IC DUAL OP AMP DIP 8 KA4558C
51	ICPR-00040-SO0	IC PROTECTOR SIP2 ICP-N15-0.6A
52	* ICRG-00040-SE0	IC REGULATOR TO-220 KA7805C
53	* ICRG-00190-SE0	IC REGULATOR TO-220 KA7912C 12V
54	* ICRG-00217-SE0	IC REGULATOR TO-220 KA7812C 12V
55	* ICRG-00330-SG0	IC REGULATOR TO-220 NJM7909FA −9V
56	IFAA-00140-E10	IFT-AM AAA014 7mm-CAN
57	IFFD-00081-E10	IFT-FM DET AFD008A 7mm-CAN
58	KIAO-00240-E20	COIL-AM OSC AAO024 MW 7mm-CAN
59	KIAO-00250-E20	COIL-AM OSC AAO025 LW 7mm-CAN
60	KIAO-00260-E20	COIL-AM OSC AAO026 SW 7mm-CAN
61	KIAT-00301-E20	COIL-AM ANT AAT030-1 LW 10mm-CAN
62	KIAT-00351-E20	COIL-AM ANT AAT035-1 MW 10mm-CAN



2. MECHA BLK [CD]

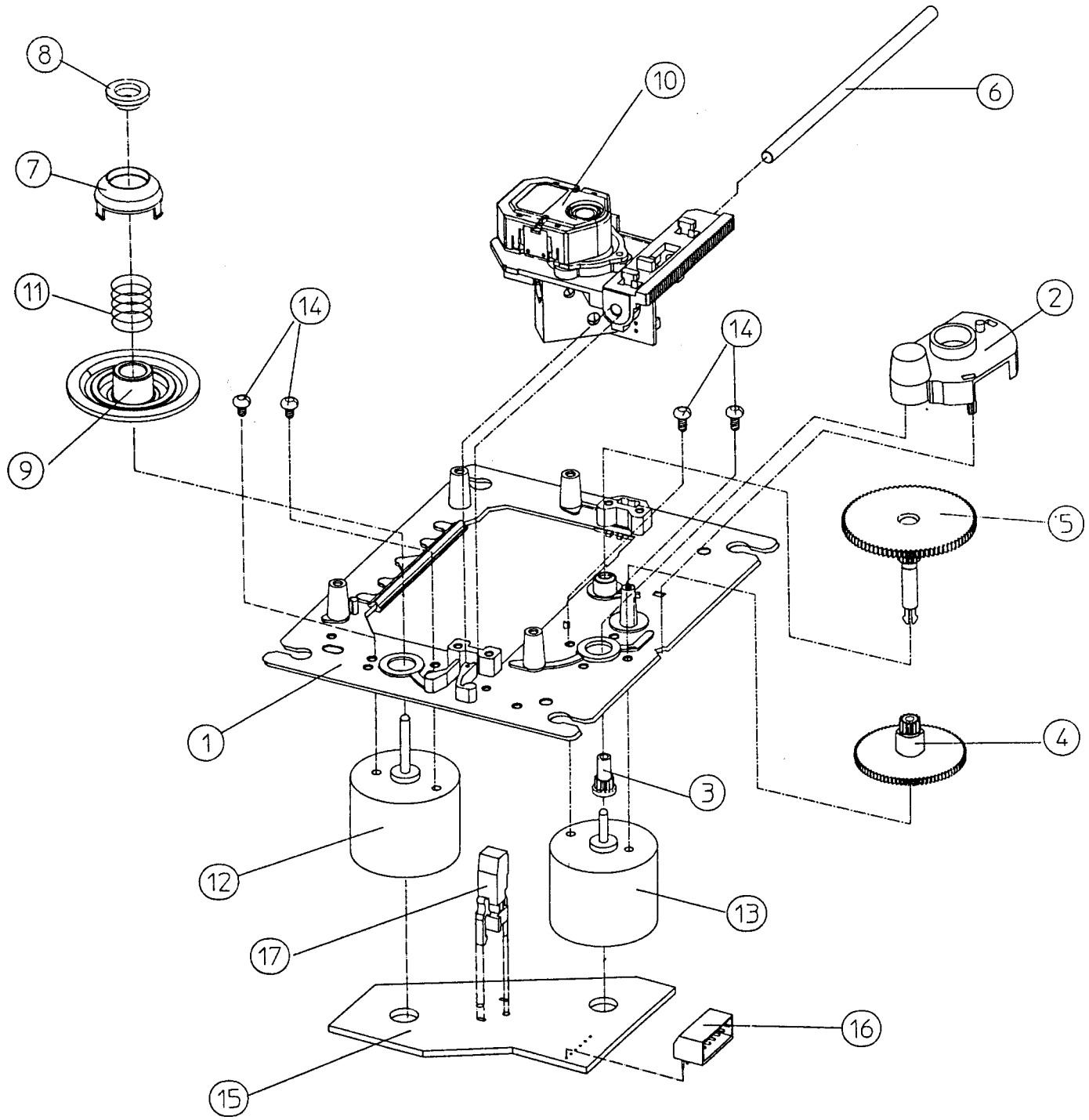
NOTE:

Part will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

CD MECHA CMS-M3A

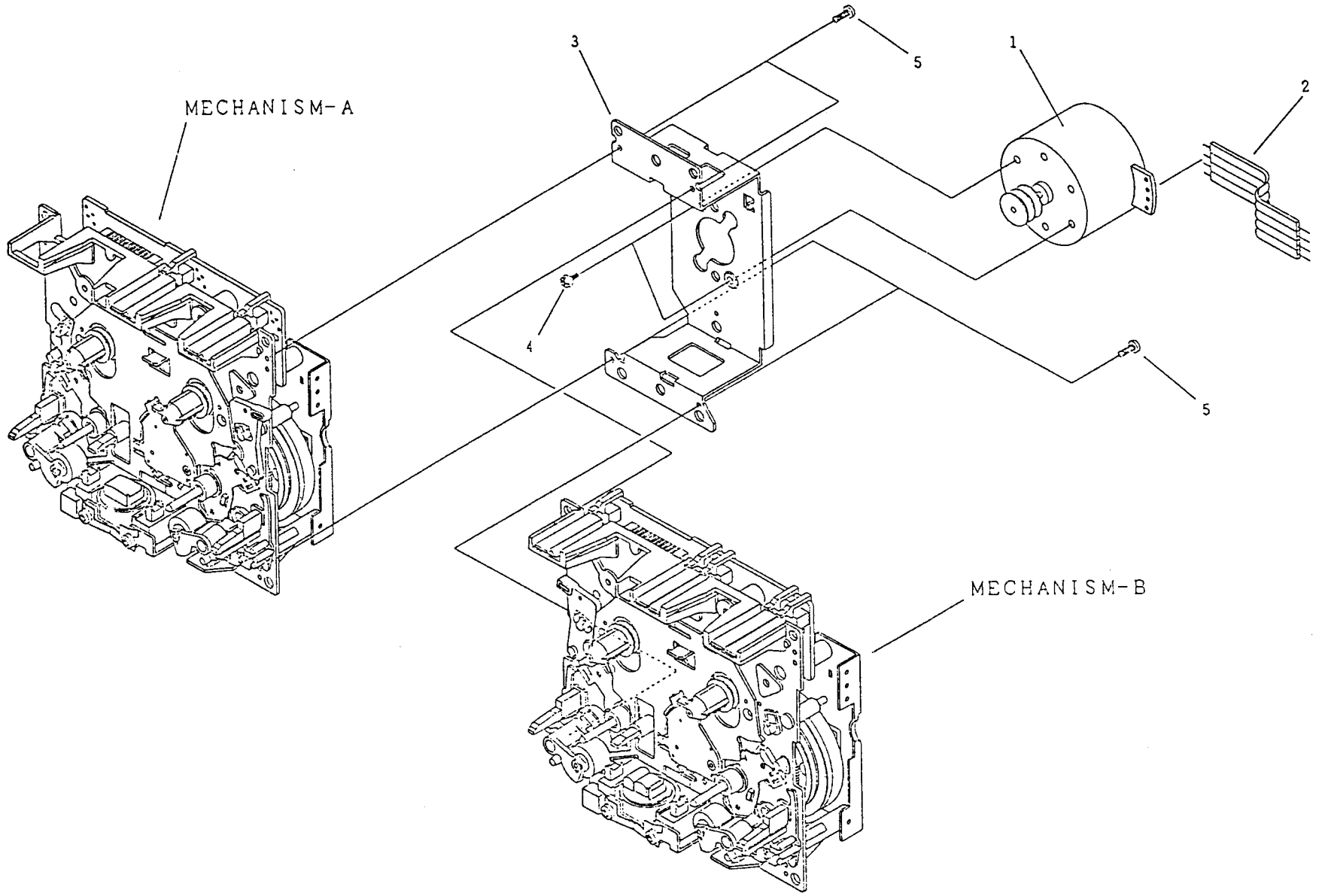
Ref. No.	Part No.	Description
*	ADCD-00110-00*	CHUCK-ASS'Y NO(2)+(32)+(17)+(7)+(4)
1	ADCD-00110-001	BASE-MAIN;ABS BLACK
5	ADCD-00110-005	GEAR(A);WHT
6	ADCD-00110-006	GEAR(B);POM BLK
11	ADCD-00110-011	TRAY;ABS BLK
12	ADCD-00110-012	BELT
19	ADCD-00110-019	RUBBER-CD SI WHT45
23	ADCD-00110-023	SCREW;TAP 3 × 8(WASHER) 17154-100-640
26	ADCD-00110-026	SHAFT-CD;FE FZY
27	ADCD-00110-027	SPRING-CAM STSWP10.2
28	ADCD-00110-028	SWITCH-LEAF;MLS-1
29	ADCD-00110-029	MOTOR;RF-500TB-12560
30	ADCD-00110-030	SWITCH-MICRO LSPPB11
31	ADCD-00110-031	DECK-CD;CMS-V30A

Ref. No.	Part No.	Description
63	KIAT-00370-E20	COIL-AM ANT AAT037 SW 10mm-CAN
64	KIBK-00050-E40	COIL-AUDIO CHOCK ABK005 2.2μ H
65	KIML-A0010-E60	COIL-FM MPX FILTER AMA-001A 19KHz 10mm-CAN
66	KIML-A0020-E20	COIL-FM MPX FILTER AFL002 114KHz 7mm-CAN
67	KIRA-00090-E60	COIL-REC FILTER ARA-009A 100KHz
68	KIRK-00150-E60	COIL-REC CHOCK ARK-015A 8.2mH MOLD SHELD
69	KIRO-00140-E60	COIL-REC OSC ARO014 85KHz 10mm-CAN
70	KIRP-00050-E60	COIL-REC TRAP ARP005A 100KHz 7mm-CAN
71	KNCW-00670-BT9	CONNECTOR-WAFER 52004-1110 11P 1.5mm-WHT
72	KNCW-00670-DT9	CONNECTOR-WAFER 52004-1310 13P 1.5mm-WHT
73	KNCW-00680-BT0	CONNECTOR-WAFER 8370-111 1.25mm T. 11P
74	KNCW-00680-7T0	CONNECTOR-WAFER 8370-071 1.25mm T. 7P
75	KTAL-00040-072	CRYSTAL HC-49/U 7.2MHz
76	KTAL-00072-169	CRYSTAL HC-49U 16.9344MHz
77	KTAL-00101-003	CRYSTAL KDSIF 32.768KHz-20P
78	KTRE-00090-040	RESONATOR CST4.00MGW 4MHz
79	* PTAJ-01050-S1V	TRANSFORMER-POWER (U, Y) A74-105S-V 74mm 115V/230V
80	* PTAJ-01050-Y1N	TRANSFORMER-POWER (E, V) A74-105Y-V 74mm 230V
81	* PTAJ-01050-Z1B	TRANSFORMER-POWER (S, B) A74-105Z-B 74mm 240V
82	* RCMS-JR22K-410	RESISTOR-CEMENT S 2W 0.22ohm 10%
83	* RFUM-F2R2J-120	RESISTOR-FUSIBLE M 1/4W 2.2ohm 5%
84	* RFUM-F560J-120	RESISTOR-FUSIBLE M 1/4W 56ohm 5%
85	* RFUM-GR22J-130	RESISTOR-FUSIBLE M 1/2W 0.22ohm 5%
86	* RFUZ-F470G-001	RESISTOR-FUSIBLE ERD2FC470P 1/4W 47ohm G
87	RMOH-H4R7J-030	RESISTOR-METAL OXIDE H 1W 4.7ohm 5%
88	RMOH-H471J-030	RESISTOR-METAL OXIDE H 1W 470ohm 5%
89	SKRC-00300-040	SOCKET-RCA JK0400910N 4P
90	SWPU-00301-038	SWITCH-PUSH 1K(2C2P) 00220014
91	SWSL-00504-057	SWITCH-SLIDE 00220867 30V 0.3A
92	SWSL-00514-058	SWITCH-SLIDE 00230875 30V 0.3A
93	SWTA-00220-060	SWITCH-TACT SKHV10910 12V 50mA
94	SWTA-00230-06V	SWITCH-TACT SKHH17910A 12V 50mA W/GND
95	* SWVS-00090-S5K	SWITCH-VOLTAGE SEL (U, Y) ESD-26604A 250V 5A
96	TEAT-00051-03R	TERMINAL ANTENNA AK1/2-1058A
97	TESP-00010-08P	TERMINAL SPEAKER AU8-2021
98	TRSA-0014Y-SD0	TRANSISTOR P-H FREQ TO220AB KTA1276-Y
99	TRSD-0008Y-SD0	TRANSISTOR N-L FREQ TO220AB KTD2058-Y
100	TRSD-0012Y-SE0	TRANSISTOR N-L FREQ TO3P(L) KSD882-Y
101	TRTA-0008G-SD0	TRANSISTOR P-H FREQ TO92 KTA1266-GR
102	TRTA-0008Y-SD0	TRANSISTOR P-H FREQ TO92 KTA1266-Y
103	TRTA-0012Y-SD0	TRANSISTOR P-H FREQ TO92L KTA1273-Y
104	TRTA-0041E-SOS	TRANSISTOR P-H FREQ TO92M DTA144E-S W/RESIST
105	TRTA-0043E-SOS	TRANSISTOR P-H FREQ TO92M DTA144E-S W/RESIST
106	TRTC-0001B-SD0	TRANSISTOR N-H FREQ TO92 KTC2878-B
107	TRTC-0008Y-SD0	TRANSISTOR N-H FREQ TO92 KTC2120-Y
108	TRTC-0010Y-SD0	TRANSISTOR N-H FREQ TO92 KTC1923-Y
109	TRTC-0016G-SD0	TRANSISTOR N-H FREQ TO92 KTC3198-GR
110	TRTC-0016Y-SD0	TRANSISTOR N-H FREQ TO92 KTC3198-Y
111	TRTC-0039Y-SD0	TRANSISTOR N-H FREQ TO92L KTC3205-Y
112	TRTC-0060E-SOS	TRANSISTOR N-H FREQ TO92M DTC144E-S
113	TRTC-0061E-SOS	TRANSISTOR N-H FREQ TO92M DTC124E-S
114	TRTC-0070Z-SOS	TRANSISTOR N-H FREQ TO92M DTC143Z-S W/RESIST
115	TRTC-0094Y-SD0	TRANSISTOR N-H FREQ TO92M KTC3199-Y
116	TRTD-00200-SD0	TRANSISTOR N-L FREQ TO92 KTD-1302
117	TUFF-00120-00D	FRONT-END FE415-G11 FTZ
118	TUFF-00150-00I	FRONT-END FE340-A01 12V
119	VCTC-00022-300	TRIMMER CVCN06C300
120	VFEB-A001B-103	RESISTOR-SEMI FIXED EVN DXA A03 B14 10kohm
121	VFEB-A001B-104	RESISTOR-SEMI FIXED EVN DXA A03 B15 100kohm
122	VFEB-A001B-222	RESISTOR-SEMI FIXED EVN DXA A03 BE3 2.2kohm
123	VFEB-A001B-223	RESISTOR-SEMI FIXED EVN DXA A03 BE4 22kohm
124	VFEB-A001B-472	RESISTOR-SEMI FIXED EVN DXA A03 BQ3 4.7kohm
125	VRAE-D018C-203	VR-ROTARY RK12K1130 0A2 23C-20KC
126	VRAE-D019W-104	VR-ROTARY RK12K1170 0A2 14W-100KW
127	VWBD-F008B-104	VR-W/MOTOR RK16Y12MC 2R2 14B-100KB×2



CD MECHA CMS-V30A

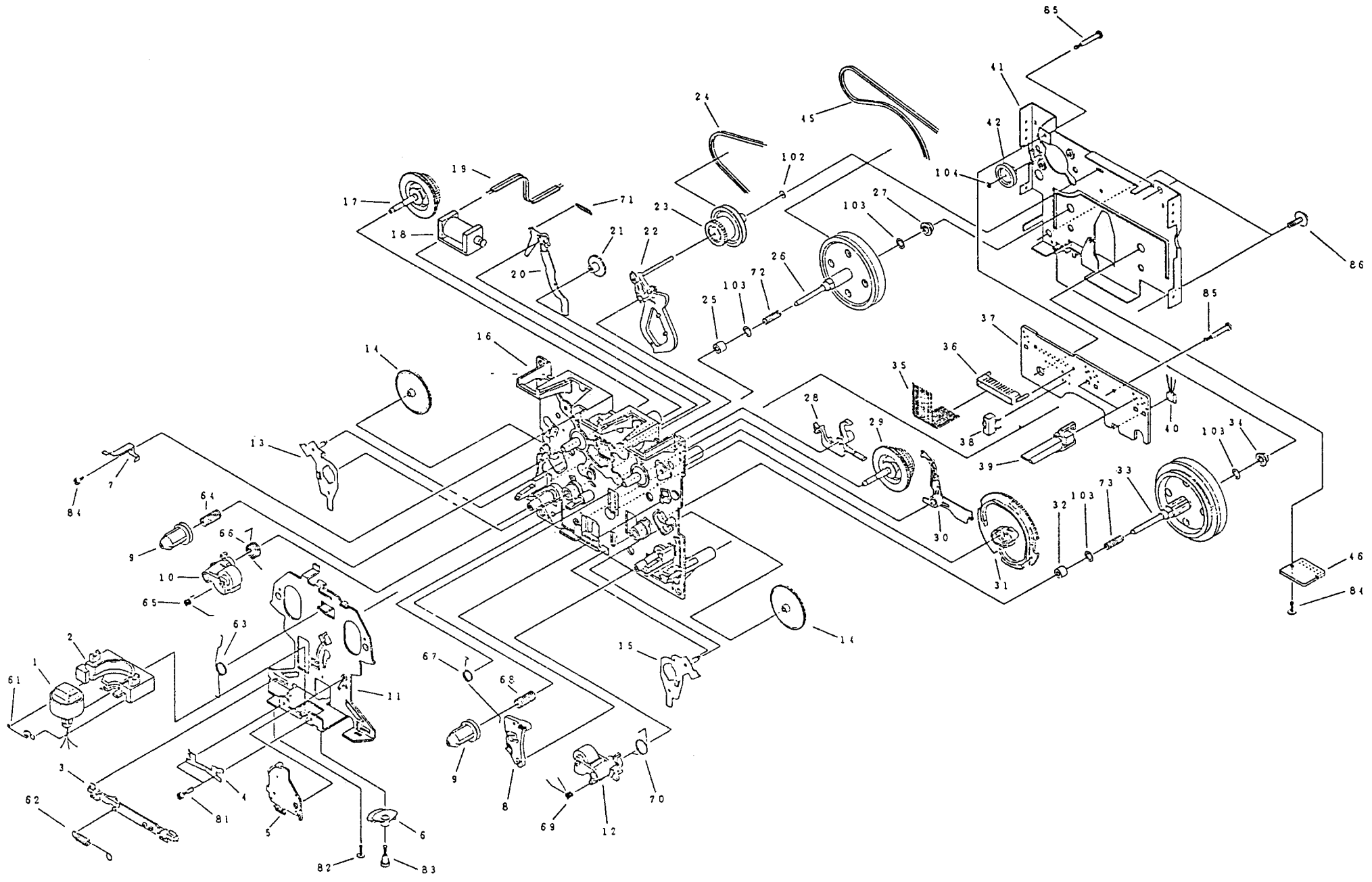
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	ADCD-00110-101	CHASSIS-DECK(M)			
2	ADCD-00110-102	COVER-GEAR			
3	ADCD-00110-103	GEAR(A)			
4	ADCD-00110-104	GEAR(B)			
5	ADCD-00110-105	GEAR(C)			
6	ADCD-00110-106	SHAFT-P/U	11	ADCD-00110-111	SPRING-T/TABLE
7	ADCD-00110-107	CENTER RING	12	ADCD-00110-112	MOTOR-SPINDLE
8	ADCD-00110-108	CENTER KNOB	13	ADCD-00110-113	MOTOR-FEED
9	ADCD-00110-109	T/TABLE	14	ADCD-00110-114	SCREW-PH
10	ADCD-00110-110	LASER PICK-UP	17	ADCD-00110-117	SWITCH-LEAF



3-1. MECHA BLK

NOTE:
Part will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

Ref. No.	Part No.	Description
1	ADCA-00340-101	ASS'Y MOTOR 22-093-4139
A	ADCA-00340-10A	ASS'Y MECHANISM-A
B	ADCA-00340-10B	ASS'Y MECHANISM-B

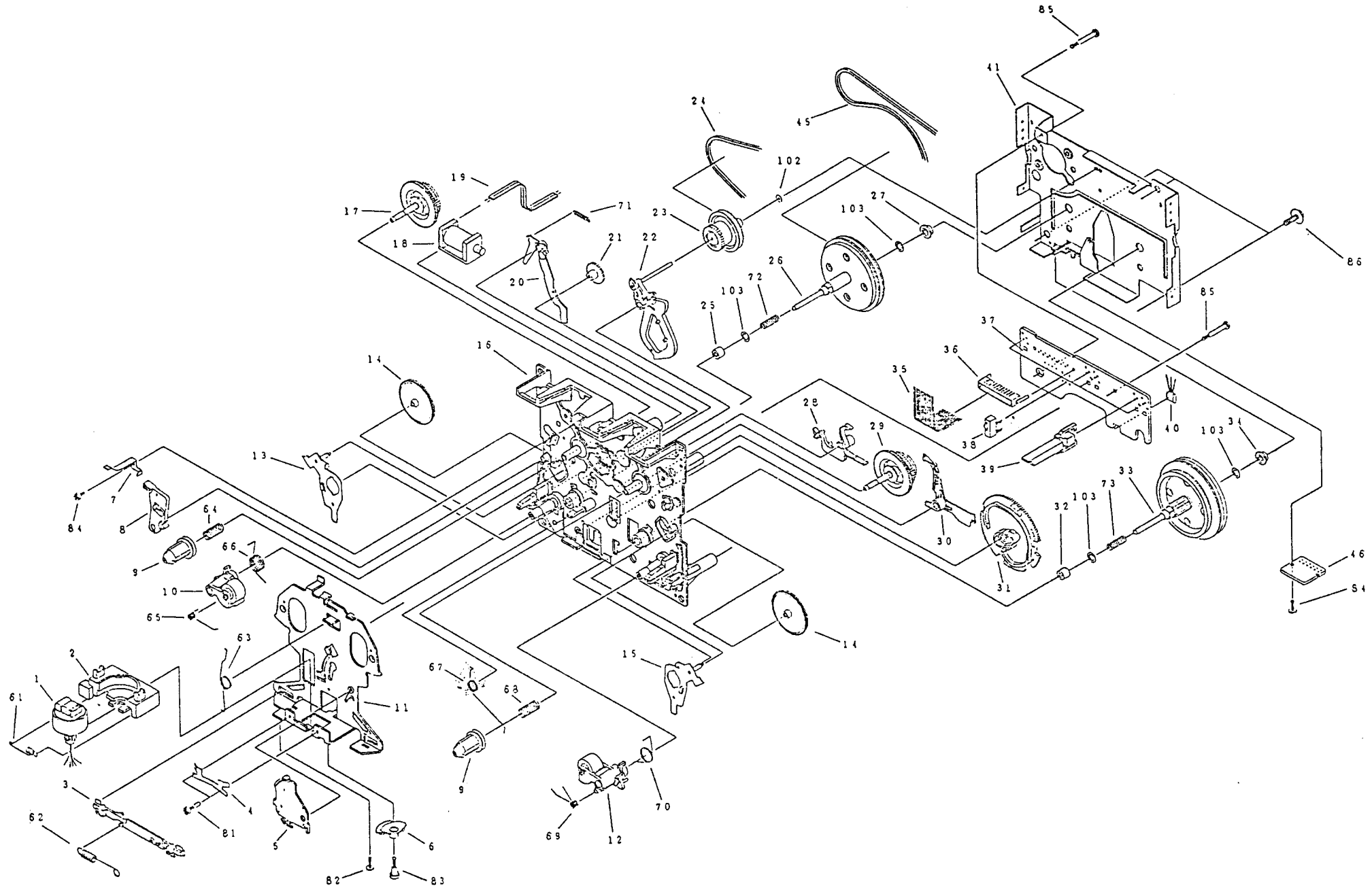


3-2. DECK MECHA-A

NOTE:

Part will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

Ref. No.	Part No.	Description
1	ADCA-00340-201	ASS'Y HOLDER HEAD 22-093-4067
2	ADCA-00340-202	FLAME HEAD 22-219-1026
3	ADCA-00340-203	LEVER HEAD 22-259-2012
4	ADCA-00340-204	SPRING AZIMUTH 16-160-4032
5	ADCA-00340-205	ASS'Y ARM ASSIST 22-093-4053
6	ADCA-00340-206	GEAR ARM HEAD 22-239-4020
7	ADCA-00340-207	SPRING CASSETTE 22-160-4017
8	ADCA-00340-208	EJECT LOCK 22-261-4043
9	ADCA-00340-209	CAP REEL 22-222-4041
10	ADCA-00340-210	ASS'Y PINCH ARM L 22-093-4149
12	ADCA-00340-212	ASS'Y PINCH ARM L 22-093-4150
13	ADCA-00340-213	ARM PLAY L 22-239-3257
14	ADCA-00340-214	GEAR PLAY 22-222-4282
15	ADCA-00340-215	ARM PLAY R 22-239-3256
17	ADCA-00340-217	ASS'Y SUB REEL L 22-093-3071
18	ADCA-00340-218	SOLENOID 07-W021Cor22-093-4419
20	ADCA-00340-220	ARM RVS 22-239-3010
21	ADCA-00340-221	GEAR FF 22-222-4048
22	ADCA-00340-222	ASS'Y ARM FR 22-093-4061
23	ADCA-00340-223	ASS'Y PULLEY FR 22-093-3060
24	ADCA-00340-224	BELT FR 02-083-4059
26	ADCA-00340-226	ASS'Y FLYWHEEL L 22-093-3051
28	ADCA-00340-228	ARM BRAKE 22-239-3028
29	ADCA-00340-229	ASS'Y SUB REEL R 22-093-4151
30	ADCA-00340-230	ARM TRIGER 22-268-3008
31	ADCA-00340-231	GEAR CAM 22-221-2090
32	ADCA-00340-232	METAL PBE 16449
33	ADCA-00340-233	ASS'Y FLYWHEEL R 22-093-3050
37	ADCA-00340-237	P.C BOARD 22-070-3018
38	ADCA-00340-238	SWITCH MODE 04-SW150or04-MPU10101MMB0
39	ADCA-00340-239	SWITCH (LEAF) 04-MTS10041MVJ1
40	ADCA-00340-240	HALL IC 00-DN6851Aor00-LB9051A
42	ADCA-00340-242	PULLEY 17-223-4639
45	ADCA-00340-245	BELT MAIN 02-083-4077
61	ADCA-00340-261	SPRING 01-080-4251
62	ADCA-00340-262	01-080-4249
63	ADCA-00340-263	01-082-4250
64	ADCA-00340-264	01-081-4257
65	ADCA-00340-265	01-082-4253
66	ADCA-00340-266	01-082-4262
67	ADCA-00340-267	01-082-4252
68	ADCA-00340-268	01-081-4258
69	ADCA-00340-269	01-082-4254
70	ADCA-00340-270	01-082-4261
71	ADCA-00340-271	01-082-4260
72	ADCA-00340-272	01-081-4073
73	ADCA-00340-273	01-081-4309
81	ADCA-00340-281	SCREW 03-300-4056
82	ADCA-00340-282	PGSU20A2005
83	ADCA-00340-283	03-300-4043
103	ADCA-00340-2A3	PGWP26×042013



3-3. DECK MECHA-B

NOTE:

Part will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

Ref. No.	Part No.	Description
1	ADCA-00340-301	ASS'Y HOLDER HEAD 22-093-4069
2	ADCA-00340-302	FLAME HEAD 22-219-1026
3	ADCA-00340-303	LEVER HEAD 22-259-2012
4	ADCA-00340-304	SPRING AZIMUTH 16-160-4032
5	ADCA-00340-305	ASS'Y ARM ASSIST 22-093-4053
6	ADCA-00340-306	GEAR ARM HEAD 22-239-4020
7	ADCA-00340-307	SPRING CASSETTE 22-160-4017
8	ADCA-00340-308	EJECT LOCK 22-261-4043
9	ADCA-00340-309	CAP REEL 22-222-4041
10	ADCA-00340-310	ASS'Y PINCH ARM L 22-093-4149
12	ADCA-00340-312	ASS'Y PINCH ARM L 22-093-4150
13	ADCA-00340-313	ARM PLAY L 22-239-3257
14	ADCA-00340-314	GEAR PLAY 22-222-4282
15	ADCA-00340-315	ARM PLAY R 22-239-3256
17	ADCA-00340-317	ASS'Y SUB REEL L 22-093-3071
18	ADCA-00340-318	SOLENOID 07-W021Cor22-093-4419
20	ADCA-00340-320	ARM RVS 22-239-3010
21	ADCA-00340-321	GEAR FF 22-222-4048
22	ADCA-00340-322	ASS'Y ARM FR 22-093-4061
23	ADCA-00340-323	ASS'Y PULLEY FR 22-093-3060
24	ADCA-00340-324	BELT FR 02-083-4059
26	ADCA-00340-326	ASS'Y FLYWHEEL L2 22-093-3142
28	ADCA-00340-328	ARM BRAKE 22-239-3028
29	ADCA-00340-329	ASS'Y SUB REEL R 22-093-4151
30	ADCA-00340-330	ARM TRIGER 22-268-3008
31	ADCA-00340-331	GEAR CAM 22-221-2090
33	ADCA-00340-333	ASS'Y FLYWHEEL R2 22-093-3142
37	ADCA-00340-337	P.C BOARD 22-070-3018
38	ADCA-00340-338	SWITCH MODE 04-SW150or04-MPU10101MMB0
39	ADCA-00340-339	SWITCH (LEAF) 04-MTS10041MVJ1
40	ADCA-00340-340	HALL IC 00-DN6851Aor00-LB9051A
45	ADCA-00340-345	BELT MAIN 02-083-4076
61	ADCA-00340-361	SPRING 01-080-4251
62	ADCA-00340-362	01-080-4249
63	ADCA-00340-363	01-082-4250
64	ADCA-00340-364	01-081-4257
65	ADCA-00340-365	01-082-4253
67	ADCA-00340-367	01-082-4252
68	ADCA-00340-368	01-081-4258
69	ADCA-00340-369	01-082-4254
70	ADCA-00340-370	01-082-4261
71	ADCA-00340-371	SPRING 01-082-4260
72	ADCA-00340-372	01-081-4073
73	ADCA-00340-373	01-081-4309
81	ADCA-00340-381	SCREW 03-300-4056
82	ADCA-00340-382	PGSU20A2005
83	ADCA-00340-383	03-300-4043
103	ADCA-00340-3A3	PGWP26×042013

P22	KNCW-00670-DT9	CONNECTOR-WAFER
		52004-1310 13P 1.5mm-WHT
CN14	KNCW-00680-BT0	CONNECTOR-WAFER
		8370-111 1.25mm T. 11P
CN13	KNCW-00680-7T0	CONNECTOR-WAFER
		8370-071 1.25mm T. 7P
X101	KTAL-00040-072	CRYSTAL HC-49/U 7.2MHz
X301	KTRE-00090-040	RESONATOR
		CST4.00MGW 4MHz
R619	RCMS-JR22K-410	RESISTOR-CEMENT
R620		S 2W 0.22ohm 10%
FR608	*RFUM-F2R2J-120	RESISTOR-FUSIBLE
		M 1/4W 2.2ohm 5%
FR602	* RFUM-F560J-120	RESISTOR-FUSIBLE
		M 1/4W 56ohm 5%
FR301	* RFUM-GR22J-130	RESISTOR-FUSIBLE
FR302		M 1/2W 0.22ohm 5%
FR603		
FR604		
FR605		
FR606		
FR607		
FR601	* RFUZ-F470G-001	RESISTOR-FUSIBLE
		ERD2FC470P 1/4W 47ohm G
R615	RMOH-H4R7J-030	RESISTOR-METAL OXIDE
R616		H 1W 4.7ohm 5%
R621		
R622		
R645	RMOH-H471J-030	RESISTOR-METAL OXIDE
R647		H 1W 470ohm 5%
JK201	SKRC-00300-040	SOCKET-RCA
		JK0400910N 4P
SW301	SWSL-00128-012	SWITCH-SLIDE
		00120050 30V 0.3A
JK101	TEAT-00051-03R	TERMINAL ANTENNA
		AK1/2-1058A
JK601	TESP-00010-08P	TERMINAL SPEAKER AU8-2021
Q340	TRSA-0014Y-SD0	TRANSISTOR P-H FREQ
		TO220AB KTA1276-Y
Q607	TRSD-0008Y-SD0	TRANSISTOR N-L FREQ
Q614		TO220AB KTD2058-Y
Q112	TRTA-0008G-SD0	TRANSISTOR P-H FREQ
Q350		TO92 KTA1266-GR
Q601		
Q602		
Q340	TRTA-0012Y-SD0	TRANSISTOR P-H FREQ
Q344		TO92L KTA1273-Y
Q347		
Q348		
Q609		
Q611		
Q612		
Q604	TRTA-0041E-SOS	TRANSISTOR P-H FREQ
		TO92M DTA144E-S W/RESIST
Q107	TRTA-0043E-SOS	TRANSISTOR P-H FREQ
Q108		TO92M DTA114E-S W/RESIST
Q109		
Q332		
Q610	TRTC-0008Y-SD0	TRANSISTOR N-H FREQ
		TO92 KTC2120-Y
Q114	TRTC-0010Y-SD0	TRANSISTOR N-H FREQ
		TO92 KTC1923-Y
Q101	TRTC-0016G-SD0	TRANSISTOR N-H FREQ
Q102		TO92 KTC3198-GR

Q110		
Q111		
Q313		
Q314		
Q315		
Q316		
Q319		
Q320		
Q323		
Q324		
Q613		
Q615		
Q333	TRTC-0039Y-SD0	TRANSISTOR N-H FREQ
		TO92L KTC3205-Y
Q605	TRTC-0060E-SOS	TRANSISTOR N-H FREQ
		TO92M DTC144E-S
Q331	TRTC-0061E-SOS	TRANSISTOR N-H FREQ
Q335		TO92M DTC124E-S
Q336		
Q337		
Q338		
Q339		
Q343		
Q345		
Q346		
Q349		
Q353		
Q354		
Q355		
Q356		
Q357		
Q359		
Q360		
Q363		
Q608		
Q103	TRTC-0094Y-SD0	TRANSISTOR N-H FREQ
Q104		TO92M KTC3199-Y
Q116		
Q301		
Q302		
Q304		
Q305		
Q306		
Q309		
Q310		
Q311		
Q312		
Q317		
Q318		
Q321		
Q322		
Q325		
Q326		
Q327		
Q328		
Q329		
Q330		
Q341		
Q342		
Q105	TRTD-00200-SD0	TRANSISTOR N-L FREQ
Q106		TO92 KTD-1302
Q115		
Q303		
Q307		

4. P.C BOARD BLOCK

Ref. No.	Part No.	Description
1	PCSU-02290-11B	PCB-SINGLE MAIN) A1U-229 247 × 330 × 1.6t
2	PCSU-02300-11B	PCB-SINGLE (FRONT) A1U-230 247 × 330 × 1.6t
3	PCSP-01180-21B	PCB-SINGLE (CD) A2P-118 139 × 197 × 1.6t
4	PCSU-01180-31B	PCB-SINGLE (SUB) [E, V, S, B] A3U-118 139 × 108 × 1.6t
5	PCSU-01240-35B	PCB-SINGLE (SUB) [Y, U] A3U-124 187 × 108 × 1.6t
6	PCSU-01980-45B	PCB-SINGLE (DECK-SUB) A4G-198 163 × 139 × 1.6t 12pcs

5. MAIN P.C BOARD (A1U-229A)

Ref. No.	Part No.	Description
CF103	BTCE-00050-004	FILTER-CERAMIC SFU 450B
CF101	BTCE-00060-107	FILTER-CERAMIC SFE 10.7MS3G-A
CF102		
D607	DDMR-00191-T11	DIODE-RECTIFIER M DO-16 GP20-02A (200V 2A)
D608		
D609		
D610		
VD101	DDSV-0003B-S30	DIODE-VVC
VD102		S DIP2 1SV149B AM 8V
VD103		
VD104		
D313	DDTR-00040-T10	DIODE-RECTIFIER
D314		T DO-41 1N4004 (400V 1A)
D315		
D605		
D606		
D611		
D612		
D613		
D614		
D615		
D616		
D107	DDTS-00030-SO0	DIODE-SI
D108		T DO-40 1S2471 (80V 0.12A)
D109		
D110		
D305		
D306		
D311		
D312		
D601		
D602		
D603		
D604		
D008	DDTS-00060-SO0	DIODE-SI
D101		T DO-40 1SS131 (90V 0.13A)
D102		
D103		
D104		
D301		
D302		
D303		
D304		
D307		
D308		
D309		
D310		
D316		
ZD201	DDTZ-G056B-SO0	DIODE ZENER
ZD202		T DO40 MTZ5.6B 5.45-5.73
ZD602	DDTZ-G120B-SO0	DIODE ZENER
		T DO40 MTZ12B 11.44-12.03
RY601	ESRY-00120-12U	RELAY JS1-12V/AJS1311
RY602	ESRY-00130-121	RELAY JW2aSN DC 12V 2POLE
IC201	ICCM-00170-SQ0	IC 4CH MUX/DEMUX
IC202		DIP16 GD4052B
IC102	ICCM-20380-S10	IC PLL DIP24S LC7218
IC301	ICDG-00370-S20	IC TAPE SELECTOR SIP9 μ PD1330HA
IC601	*ICHP-00070-S10	IC HYBRID AMP-POWER SIP18 STK4142 Ⅱ 25W × 2
IC103	ICLN-00070-SD0	IC PLL FM MPX SIP 9 KIA7343P
IC101	ICLN-00220-S10	IC FM/AM IF + DET DIP22S LA1265
IC302	ICLN-00540-SO0	IC 2CH PRE AMP DIP16 BA3416BL
IC303	ICLN-00681-SA0	IC DOLBY B DIP16 HA12136A
IC305	ICMP-00740-SA0	IC UCOMPUTER QFP64 HMCS408 DECK
IC304	ICOP-00130-SE0	IC DUAL OP AMP SIP 9 KA4558S
IC203	ICOP-00131-SE0	IC DUAL OP AMP
IC204		DIP 8 KA4558C
IC604	*ICRG-00040-SE0	IC REGULATOR TO-220 KA7805C
IC603	*ICRG-00190-SE0	IC REGULATOR TO-220 KA7912C 12V
IC605	*ICRG-00330-SG0	IC REGULATOR TO-220 NJM7909FA (−9V, 2.2A)
T106	IFAA-00140-E10	IFT-AM AAA014 7mm-CAN
T105	IFFD-00081-E10	IFT-FM DET AFD008A 7mm-CAN
T103	KIAO-00240-E20	COIL-AM OSC AAO024 MW 7mm-CAN
T104	KIAO-00250-E20	COIL-AM OSC AAO025 LW 7mm-CAN
T102	KIAT-00300-E20	COIL-AM ANT AAT030 LW 10mm-CAN
T101	KIAT-00350-E20	COIL-AM ANT AAT035 MW 10mm-CAN
L601	KIBK-0050-E40	COIL-AUDIO CHOCK
L602		ABK005 2.2μ H
T107	KIML-A0010-E60	COIL-FM MPX FILTER
T108		AMA-001A 10KHz 10mm-CAN
L303	KIRA-00090-E60	COIL-REC FILTER
L304		ARA-009A 100KHz
L301	KIRK-00150-E60	COIL-REC CHOCK
L302		ARK-015A 8.2mH MOLD SHELD
T305	KIRO-00140-E60	COIL-REC OSC ARO014 85KHz 10mm-CAN
T301	KIRP-00050-E60	COIL-REC TRAP
T302		ARP005A 100KHz 7mm-C
T303		
T304		
P21	KNCW-00670-BT9	CONNECTOR-WAFER 52004-1110 11P 1.5mm-WHT

8. V.R P.C BOARD (A1U-230B)

Ref. No.	Part No.	Description
D523	DDTS-00060-SO0	DIODE-SI T DO-40 1SS131 (90V 0.13A)
ZD502	DDTZ-G082C-SO0	DIODE ZENER T DO40 MTZ8.2C 8.03-8.45
IC509	ICDG-00560-SO0	IC MOTOR DRIVER SIP9 BA6208
R574	RMOH-H121J-030	RESISTOR-METAL OXIDE H 1W 120ohm 5%
Q511	TRTA-0008G-SD0	TRANSISTOR P-H FREQ TO92 KTA1266-GR
Q508	TRTC-0016G-SD0	TRANSISTOR N-H FREQ TO92 KTC3198-GR
Q509	TRTD-00200-SD0	TRANSISTOR N-L FREQ
Q510		TO92 KTD-1302
VR510	VWBD-F008B-104	VR-W/MOTOR RK16Y12MC 2R2 14B-100KB×2

9. DECK KEY P.C BOARD (A1U-230C)

Ref. No.	Part No.	Description
D524	DDTS-00060-SO0	DIODE-SI
D525		T DO-40 1SS131 (90V 0.13A)
D526		
LD503	DPLT-00073-VC3	DOT-LED SLR-34VC3 RED R3 TAPPING
LD501	DPLT-00073-YC3	DOT-LED
LD502		SLR-34YC3 YEL R3 TAPPING
LD504		
LD505		
LD506		
LD507		
LD508		
LD509		
P14	KNCW-00680-BS0	CONNECTOR-WAFER 8370-117 1.25mm S. 11P
P13	KNCW-00680-7S0	CONNECTOR-WAFER 8370-077 1.25mm S. 7P
SW504	SWSL-00504-057	SWITCH-SLIDE 00220867 30V 0.3A
SW503	SWSL-00514-058	SWITCH-SLIDE 00230875 30V 0.3A
S521	SWTA-00220-060	SWITCH-TACT
S522		SKHV10910 12V 50mA
S523		
S524		
S525		
S526		
S527		
S528		
S529		
S530		
S531		
S532		

10. LED P.C BOARD (A1U-230D)

Ref. No.	Part No.	Description
LD510	DPLT-00141-YC5	DOT-LED DLY-503T YEL R5 N

11. REMOTE SENSE P.C BOARD (A1U-230E)

Ref. No.	Part No.	Description
IC502	ICHY-00140-SB0	IC REMOTE RECEIVER RPM-676CBR-L

12. HEAD PHONE P.C BOARD (A1U-230F)

Ref. No.	Part No.	Description
JK501	SHPH-00162-66W	SOCKET-PHONE HTJ064-04A W/NUT WASHER

13. MIC JACK P.C BOARD (A1U-230G)

Ref. No.	Part No.	Description
JK502	SKPH-00330-66W	SOCKET-PHONE HTJ064-10I W/NUT WASHER

14. C.D P.C BOARD (A2P-118)

Ref. No.	Part No.	Description
D901	DDTS-00060-SO0	DIODE-SI
D902		T DO-40 1SS131 (90V 0.13A)
D903		
D906		
D904	DDTZ-G075B-SO0	DIODE ZENER T DO40 MTZ7.5B 7.07-7.45
D905	DDTZ-G082C-SO0	DIODE ZENER
D907		T DO40 MTZ8.2C 8.03-8.45
IC904	ICDG-00590-SE0	IC 16BIT D/A CONVERT DIP20 KDA0316
IC901	ICDG-00870-SE0	IC SIGNAL PROCESSOR QFP80 KS9210
IC902	ICLN-01330-SE0	IC SIGNAL PROCESSOR FQP48 KA8309
IC903	ICLN-01340-SE0	IC RF AMP FOR CDP SOP30 KA9201D
IC905	ICOP-00130-SE0	IC DUAL OP AMP
IC906		SIP9 KA4558S
IC909	ICPR-00040-SO0	IC PROTECTOR
IC910		SIP2 ICP-N15-0.6A
IC907	ICRG-00040-SE0	IC REGULATOR TO-220 KA7805C
IC908	*ICRG-00220-SE0	IC REGULATOR TO-92 MC79L05 −5V
XL901	KTAL-00072-169	CRYSTAL HC-49U 16.9344MHz
ME001	MEAC-08213-004	RADIATOR-TR
Q910	TRSD-0012Y-SE0	TRANSISTOR N-L FREQ
Q914		TO3P(L) KSD882-Y
Q905	TRTA-0008Y-SD0	TRANSISTOR P-H FREQ
Q906		TO92 KTA1266-Y
Q909		
Q923		
Q911	TRTA-0012Y-SD0	TRANSISTOR P-H FREQ
Q913		TO92L KTA1273-Y
Q915		
Q917		
Q918		
Q919		
Q901	TRTC-0001B-SD0	TRANSISTOR N-H FREQ
Q902		TO92 KTC2878-B
Q907	TRTC-0016Y-SD0	TRANSISTOR N-H FREQ
Q908		TO92 KTC3198-Y
Q920		
Q921		

Q308		
Q334		
Q351		
Q352		
Q361		
Q362		
Q364		
Q603		
FE101	TUFF-00150-001	FRONT-END FE340-A01 12V
VC101	VCTC-00022-300	TR IMMER
VC102		CVCN06C300
SV104	VFEB-A001B-103	RESISTOR-SEMI FIXED
SV301		EVN DXA A03 B14 10kohm
SV302		
SV303		
SV304		
SV307	VFEB-A001B-104	RESISTOR-SEMI FIXED
SV308		EVN DXA A03 B15 100kohm
SV305	VFEB-A001B-222	RESISTOR-SEMI FIXED
SV306		EVN DXA A03 BE3 2.2kohm
SV102	VFEB-A001B-223	RESISTOR-SEMI FIXED
		EVN DXA A03 BE4 22kohm
SV101	VFEB-A001B-472	RESISTOR-SEMI FIXED
SV103		EVN DXA A03 BQ3 4.7kohm
SV309		
SV310		

6. REGULATOR IC P.C BOARD (A1U-229B)

Ref. No.	Part No.	Description
001		
IC602	* ICRG-00217-SE0	IC REGULATOR
		TO-220 KA7812C 12V

7. FRONT P.C BOARD (A1U-230A)

Ref. No.	Part No.	Description
C510	CEGS-B105Z-ND0	CAPACITOR E/DO LAYER
		S 5.5V 1.0F Z 20.0 × 6.0H
D518	DDTR-00040-T10	DIODE-RECTIFIER
D519		T DO-41 1N4004 (400V 1A)
D527		
D505	DDTS-00060-SO0	DIODE-SI
D506		T DO-40 1SS131 (90V 0.13A)
D507		
D508		
D509		
D510		
D511		
D512		
D513		
D514		
D515		
D516		
D517		
D520		
D521		
D522		
ZD501	DDTZ-G091B-SO0	DIODE ZENER
ZD503		T DO40 MTZ9.1B 9.01
LP501	DPLA-00210-YTL	LAMP
LP502		SL425-012110PL 110mA 12V
LCD501	DPLC-00200-00T	DISPLAY-LCD
		TUNER+CDP LE-0716AP
IC503	ICCM-20501-S30	IC CMOS
IC504		DIP16 TC4094B
IC505	ICLN-00710-S90	IC 7BAND EQ
IC506		DIP20 M5229P
IC501	ICMP-00730-SA0	IC UCOMPUTER
		QFP100 HD404629 TUNER
IC507	ICOP-00130-SE0	IC DUAL OP AMP
IC508		SIP 9 KA4558S
X502	KTAL-00101-003	CRYSTAL
		KDS IF 32.768KHz-20P
X501	KTRE-00090-040	RESONATOR
		CST4.00MGW 4MHz
SW501	SWPU-00301-038	SWITCH-PUSH
SW502		1K(2C2P) 00220014
S501	SWTA-00220-060	SWITCH-TACT
S502		SKHV10910 12V 50mA
S503		
S504		
S505		
S506		
S507		
S508		
S509		
S510		
S511		
S512		
S513		
S514		
S515		
S516		
S517		
S518		
S519		
S520		
Q501	TRTA-0008G-SD0	TRANSISTOR P-H FREQ
Q502		TO92 KTA1266-GR
Q503	TRTC-0016G-SD0	TRANSISTOR N-H FREQ
Q504		TO92 KTC3198-GR
Q505		
Q506		
Q507		
VR501	VLBO-D032B-104	VR-SLIDE
VR502		RS20H123D-100KB × 2 RED
VR503		
VR504		
VR505		
VR506		
VR507		
VR509	VRAE-D018C-203	VR-ROTARY
		RK12K1130 0A2 23C-20KC
VR508	VRAE-D019W-104	VR-ROTARY
		RK12K1170 0A2 14W-100KW
ZD502	DDTZ-G082C-SO0	DIODE ZENER
		T DO40 MTZ8.2C 8.03-8.45
IC509	ICDG-00560-SO0	IC MOTOR DRIVER
		SIP9 BA6208
R574	RMOH-H121J-030	RESISTOR-METAL OXIDE
		H 1W 120ohm 5%
Q509	TRTD-00200-SD0	TRANSISTOR N-L FREQ
Q510		TO92 KTD-1302
VR510	VWBD-F008B-104	VR-W/MOTOR
		RK16Y12MC 2R2 14B-100KB × 2

Q924		
Q912	TRTC-0039Y-SD0	TRANSISTOR N-H FREQ
Q916		TO92L KTC3205-Y
Q922	TRTC-0070Z-SOS	TRANSISTOR N-H FREQ
		TO92M DTC143Z-S W/RESIST
Q903	TRTD-00200-SD0	TRANSISTOR N-L FREQ
Q904		TO92 KTD-1302
VR901	VFAB-A005B-103	RESISTOR-SEMI FIXED
		RH0615C100-103 10KB
VR905	VFAB-A005B-222	RESISTOR-SEMI FIXED
		RH0615C100-222 2.2KB
VR902	VFAB-A005B-223	RESISTOR-SEMI FIXED
VR903		RH0615C100-223 22KB
VR904		

15. P.T P.C BOARD (A3U-118) [E, B, S, V]

Ref. No.	Part No.	Description
C701	* CACS-U472M-084	CAPACITOR AC
		S 400V SCF2G472M12BS M
C701	* CACS-U472M-039	CAPACITOR AC
		DE7150F472MVA1-KC 400V
D701	DDMR-00210-T11	DIODE-RECTIFIER
D702		M DO-20 1N5402S (200V 3A)
D703		
D704		
F701	* FGFB-S1252-137	FUSE GLASS
		FST034.3118 250V T1.25A
F701	MPAC-11620-004	FUSE CLIP
		5.2PI TAPPING TYPE
PT701	* PTAJ-01050-Y1V	TRANSFORMER-POWER
		A74-105Y-V 74mm 230V
PT701	* PTAJ-01050-Z1B	TRANSFORMER-POWER
		A74-105Z-B 74mm 240V
FR705	* RFUH-HR22J-030	RESISTOR-FUSIBLE
FR706		H 1W 0.22ohm 5%
FR701	* RFUM-GR22J-130	RESISTOR-FUSIBLE
FR702		M 1/2W 0.22ohm 5%
FR703	* RFUM-G1R0J-130	RESISTOR-FUSIBLE
FR704		M 1/2W 1ohm 5%

16. P.T P.C BOARD (A3U-124A) [V, Y]

Ref. No.	Part No.	Description
D701	* DDMR-00210-T11	DIODE-RECTIFIER
D702		M DO-20 1N5402S (200V 3A)
D703		
D704		
PT701	* PTAJ-01050-S1V	TRANSFORMER-POWER
		A74-105S-V 74mm 115V/230V
FR705	* RFUH-HR22J-030	RESISTOR-FUSIBLE
FR706		H 1W 0.22ohm 5%
FR701	* RFUM-GR22J-130	RESISTOR-FUSIBLE
FR702		M 1/2W 0.22ohm 5%
FR703	* RFUM-G1R0J-130	RESISTOR-FUSIBLE
FR704		M 1/2W 1ohm 5%

17. VTG. SW P.C BOARD (A3U-124B) [U, Y]

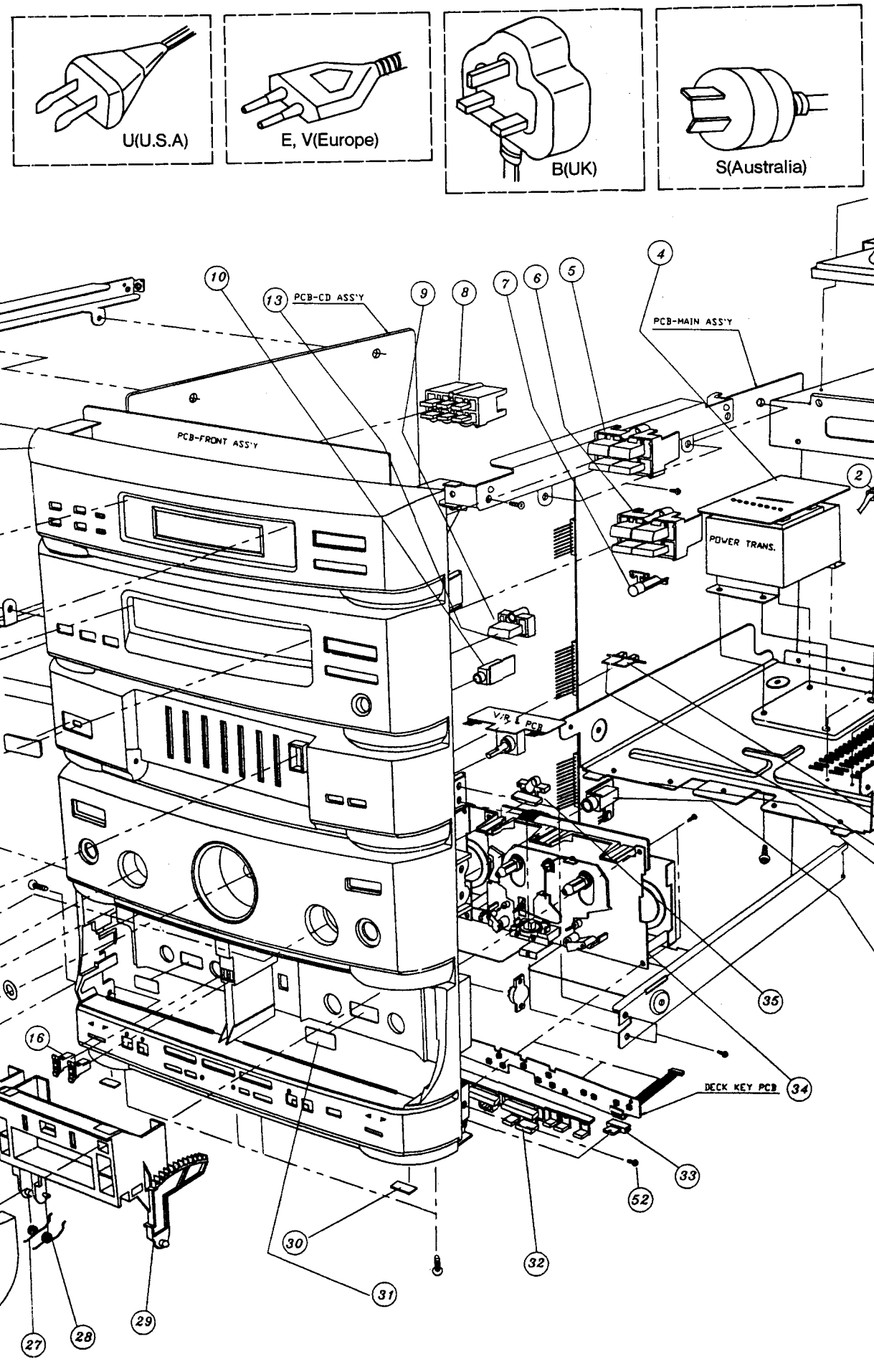
Ref. No.	Part No.	Description
C701	* CACS-U472M-084	CAPACITOR AC
		S 400V SCF2G472M12BS M
F701	* FGFB-S1252-137	FUSE GLASS
F702		FST034.3118 250V T1.25A
F701	MPAC-11620-004	FUSE CLIP
F702		5.2Pi TAPPING TYPE
SW701	* SWVS-00090-S5K	SWITCH-VOLTAGE SEL
		ESD-26604A 250V 5A

18. DECK SUB P.C BOARD (A4G-198)

Ref. No.	Part No.	Description
D001	DDTS-00060-SO0	DIODE-SI
D002		T DO-40 1SS131 (90V 0.13A)
D003		
D004		
D005		
D006		
D007		
Q002	TRTC-0061E-SOS	TRANSISTOR N-H FREQ
Q003		TO92M DTC124E-S
Q004		
Q005		
Q006		
Q001	TRTC-0094Y-SD0	TRANSISTOR N-H FREQ
		TO92M KTC3199-Y

19. FINAL ASSEMBLY

NOTE:
Part will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.



NO	PARTS NAME	QTY	CORD NO
38	KNOB-SURROUND	1	MJAF-09880-ZZ4
37	KNOB-BASS	1	MJAF-10020-ZZ4
36	JACK-MIC	1	
35	KNOB-SELECTOR	1	MJAF-09970-ZZ4
34	MECHA-CASSETTE	1	DECA-00340-00M
33	KNOB-REVERSE	1	MJAF-09910-ZZ4
32	KNOB-OPERATION	1	MJAF-03861-ZZ3
31	REFLECTOR	2	MEAG-04940-014
30	CUSHION-FOOT	2	MRAG-09140-004
29	BODY-DECK-R	1	MJAG-00230-002
28	EJECT-SPRING-R	1	MMAC-11900-004
27	EJECT-SPRING-L	1	MMAC-11910-004
26	COVER-DECK-R	1	MJAF-01790-ZZ2
25	WINDOW-DECK-R	1	MAAF-09640-2Z4
24	WINDOW-DECK-L	1	MAAF-09640-1Z4
23	COVER-DECK-L	1	MJAF-01800-ZZ2
22	BODY-DECK-L	1	MJAG-00240-002
21	KNOB-VOLUME	1	MJAF-09890-ZZ4
20	LENS-INDICATOR	1	MAAF-09900-ZZ4
19	KNOB-DOLBY	1	MJAF-10030-ZZ4
18	KNOB-BALANCE	2	MJAF-09920-ZZ4
17	DOOR-EQ	1	MGAF-03870-ZZ3
16	LATCH-PUSH	3	MGAF-00840-003
15	GEAR-DAMPER	2	MJAF-08110-004
14	DOOR-CD	1	MJAF-02830-ZZ3
13	WINDOW-REMOTE	1	MGAF-10020-ZZ4
12	WINDOW-TUNING	1	MGAF-10010-ZZ4
11	PANEL-FRONT	1	MJAF-02660-ZZ4
10	JACK-PHONE	1	
9	KNOB-POWER	1	MJAF-09950-ZZ4
8	KNOB-BAND	1	MJAF-03850-ZZ3
7	KNOB-EJECT	1	MJAF-09930-ZZ4
6	KNOB-FUNTION	1	MJAF-03850-ZZ4
5	KNOB-TUNING	1	MJAF-03840-ZZ4
4	PCB-P/T	1	
3	MECHANISM-CD	1	MPAC-02920-002
2	CORD-BUSH	1	MJAG-00281-003
1	COVER-TOP	1	MPAC-02670-ZZ1

ABBREVIATIONS (TUNER)

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AFC	Auto Frequency Control	MEMO	MEMOry
AGC	Auto Gain Control	MI-COM	MIcro-COMputer
ALC	Auto Level Control	MIN	MINimum
AM	Amplitude Modulation	MIX	MIXing
AMP	AMPlifier	MPX	MultipleX
ANT	ANTenna	MW	Medium Wave(frequency)
BATT	BATTery	NC	No Connection
BLK	BLocK	NFB	Negative Feed Back
BUFF	BUFFer	OSC	OSCillator
COMP	COMParator	PCB	Printed Circuit Board
DET	DETect(DETctor)	PLL	Phase Locked Loop
FLD	FLuorescent Display	Q.D	Quadrature Detector
FM	Frequency Modulation	Rch	Right channel
FREQ	FREQuency	REF	REFerence
GND	GrouND	REG	REGulator
H	High	RF	Radio Frequency
HPF	High Pass Filter	SEG	SEGment
IF	Intermediate Frequency	SELE	SELEctor
IHF	Institut of High Fidelity	SENS	SENSitivity
IND	INDicator	SIG	SIGnal
I/O	In/Out	S/N	Signal to Noise Ratio
JW	Jumper Wire	SSG	Standard Signal Generator
L	Low	STD	STanDard
LCD	Liquid Crystal Display	SW	SWitch : Short Wave(frequency)
Lch	Left channel	THD	Total Harmonic Distortion
LED	Light Emiting Diode	TP	Test Point
LPF	Low Pass Filter	VCO	Voltage Controlled Oscillator
LW	Long Wave(Frequency)	VR	Variable Resistor
		X'TAL	Crystal

ABBREVIATIONS (COMPACT DISC)

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
A-D	Analog to Digital (Convertor)	Mb	Mega Bits
ADC	Analog to Digital (Convertor)	MDA	Mortor Drive Amplifier
BCD	Binary Code Decimal	MFM	Modified Frequency Modulation
BPI	Bits per Inch	MM	Mono-stable Multivibrator
CD	Compact Disc	M_2FM	Modified Modified Frequency Modulation
CIRC	Cross Interleaving & Reed Solomon Coding	MOD2	Modulo 2(Addition)
CLV	Constant Linear Velocity	MP	Microprocessor
CP	Clock Pulses	MSB	Most Significant Bit
CRCC	Cyclic Redundancy Check Codes	NA	Numerical Aperture
D Level	Decision Level	NRZ	Non Return to Zero
D-A	Digital to Analog (Convertor)	NRZ-1	Non Return to Zero Inverted
DAC	Digital to Analog (Convertor)	P	Parity Data
DAD	Digital Audio Disc	PAM	Pulse Amplitude Modulation
DEM	Dynamic Element Matching	PCM	Pulse Code Modulation
DPD	Differential Phase Detection	PD	Phase Detector
DSV	Digital Sum Value	PE	Phase Encode
EFM	Eight to fourteen Modulation	PLL	Phase Locked Loop
EX-OR	Exclusive OR	PNM	Pulse Number Modulation
FCI	Flux Changes per Inch	PPM	Pulse Phase Modulation
FIR	Finite Impulse Response	PWM	Pulse Width Modulation
FP	Front Pulse	Q	Parity Data
FPG	Front Pulse Gate	R, R_1, R_2, etc	Data for Right Channel
F	Frequency of Sampling	RAM	Random Access Memory
GF	Galois Field	RPG	Rear Pulse Gate
H & V (Parity)	Horizonal & Vertical	SCOOP	Self Coupled Optical Pick-up
IIR	Infinite Impulse Response	S & H	Sample & Hold
KB	Kilo Bits	S/N	Signal to Noise Ratio
L, L^1, L^2, etc.	Data for Left Channel	SSG	Standard Signal Generator
LPF	Low Pass Filter	SYSCON	SYStem CONtrol
LSB	Least Significant Bit		

ABBREVIATIONS (CASSETTE)

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AC	Alternating Current	MIN	MINute
A/D	Analog/Digital	MML	Maximum Modulation Level
AF	Auto Fader	MOL	Maximum Output Level
AMP	AMPlifier	MPX	Multi Plex
AR	Anti Recording	NC	Not Connected (No Connection)
AT BIAS	Auto Turning BIAS	NFB	Negative Feed Back
ATT	ATTenuator	NORM	NORMal
BAL	BALance	NR	Noise Reduction
BEF	Band Elimination Filter	OSC	OSCillator (OSCillation)
BSS	Blank Search System	P	Pulse
CAP M	CAPstan Motor	PB	Play Back
CH	CHannel	OMSS	Ouick Memory Search System
COMP	COMParator	OR	Ouick Reverse
CONT	CONTinuance	R CH	Right CHannel
CRLP	Computer Recording Level Processing	REC	RECord(RECording)
CS	Chip Select	REV	REVerse
D/A	Digital/Analog	ROT	ROTation
DC	Direct Current	REW	REWind
DET	DETector	SEC	SECond
DISCRI	DISCRIminator	SELE	SELEctor
DUB	DUBbing	SENS	SENSitivity
EQ	EQualizer	SEPP	Single Ended Push Pull
FF(or F.FWD)	Fast Foward	SIG	SIGnal
FLD	FLuoresent Display	SPECT	SPECTrum
FREQ	FREQuency	STD	STanDard
FWD	ForWarD	SW	SWitch
GND	GrouND	SYSCON	SYStem CONtrol
H	High	TP	Test Point
HPF	High Pass Filter	TRIG	TRIGa
IND	INDicator	VCA	Voltage Control Attenuator
IPLS	Instant Program Location System	VOL	VOLume
L	Low	VOLT	VOLTage
L CH	Left CHannel	VR	Variable Resistor
LED	Light Emitining Diode	X'TAL	cysTAL
MEMO	MEMOry	X1	Normal speed
MICOM	MIcroCOMputer	X2	Dubble speed

ABBREVIATIONS (AMPLIFIER)

ABBREVIATION	EXPLANATION
A	Analog
AC	Alternating Current
AMP	AMPlifier
CD	Compact Disc
COM	COMmon
D	Digital
D/A	Digital to Analog
DAC	Digital to Analog Converter
DAT	Digital Audio Tape recorder
DC	Direct Current
GND	GrouND
L	Left
LED	Light Emitting Diode
MC	Moving Coil
MM	Moving Magnet
PCB	Printed Circuit Board
R	Right
REG	REGulator
REC	RECord
TR	TRansistor
SW	SWitch
V.AMP	Voltage AMPlifier
V.DISC	Video DISC
VR	Variable Resistance
VTR	Video Tape Recorder

AC-MX105

AKAI SERVICE MANUAL

AC-MX 370

AC-MX105

SCHEMATIC DIAGRAMS AND PC BOARD

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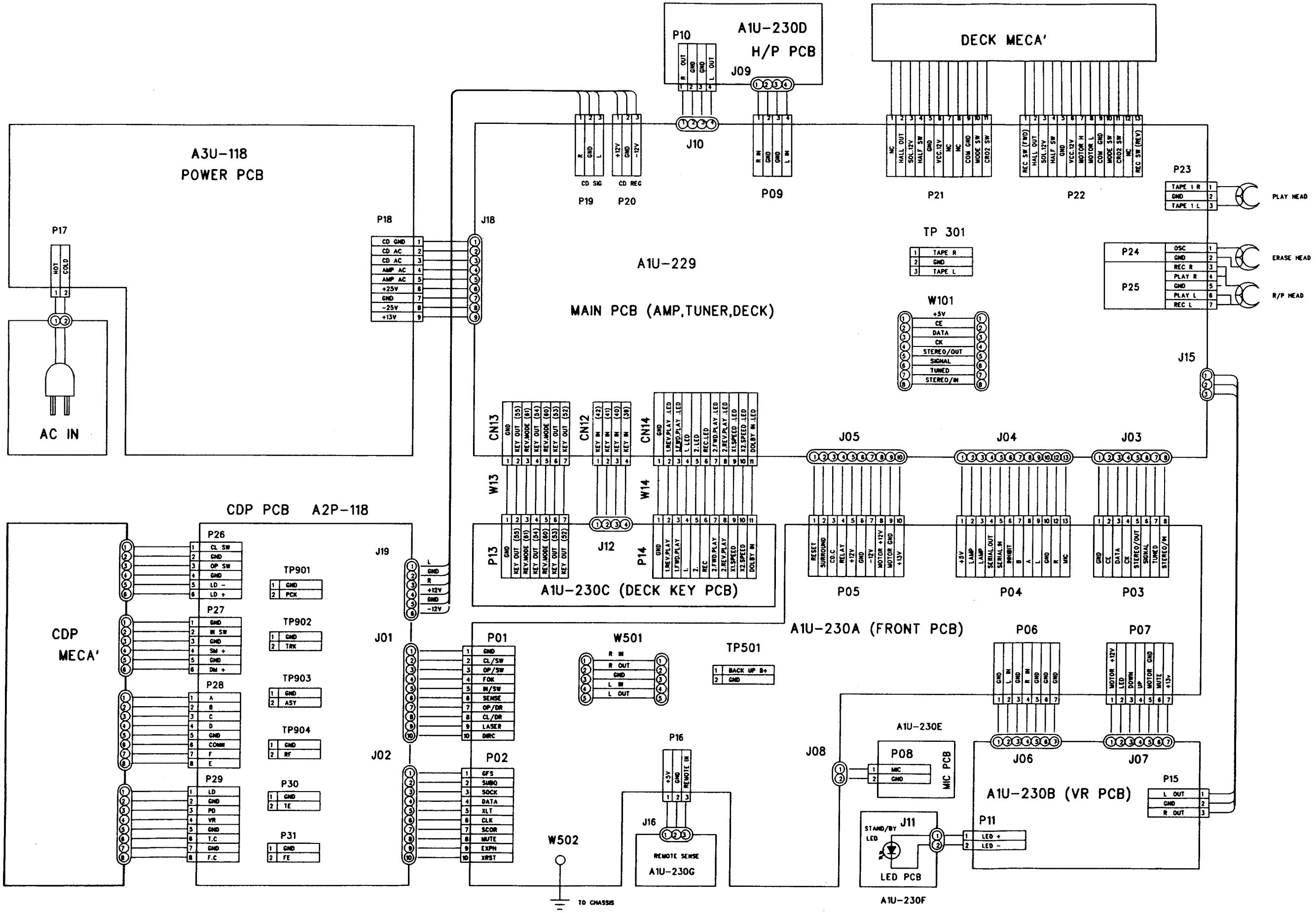
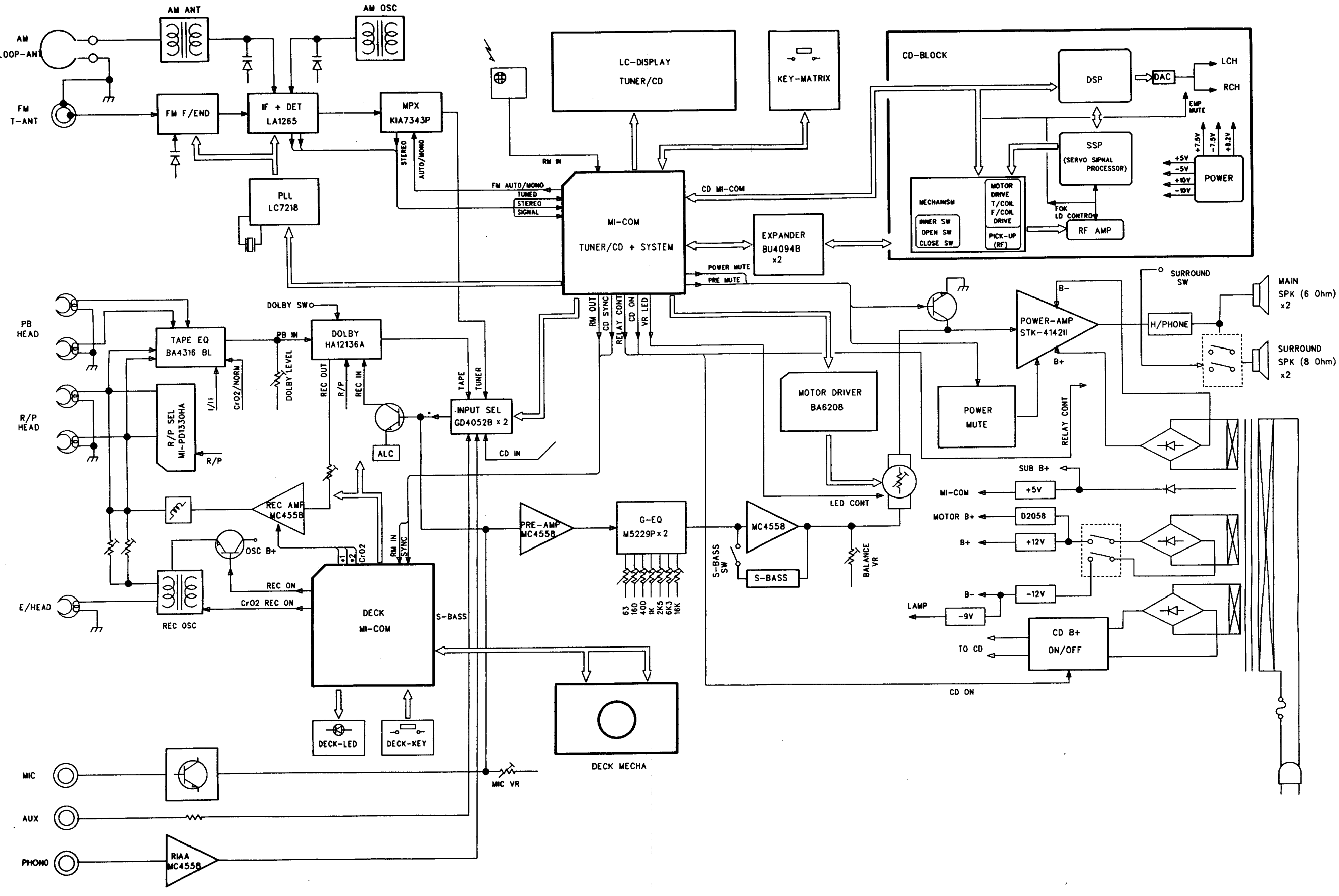
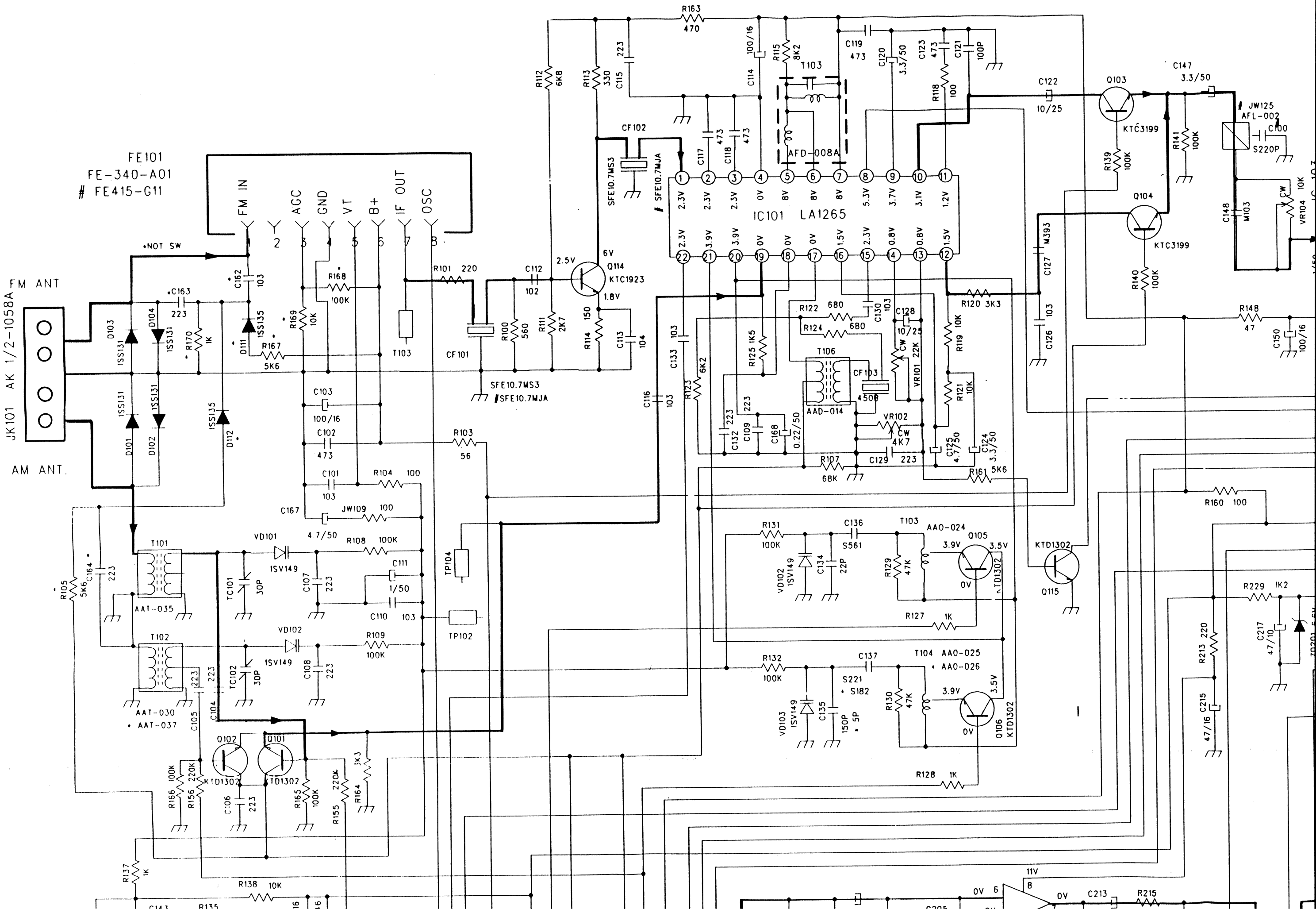
I. CONNECTION DIAGRAM



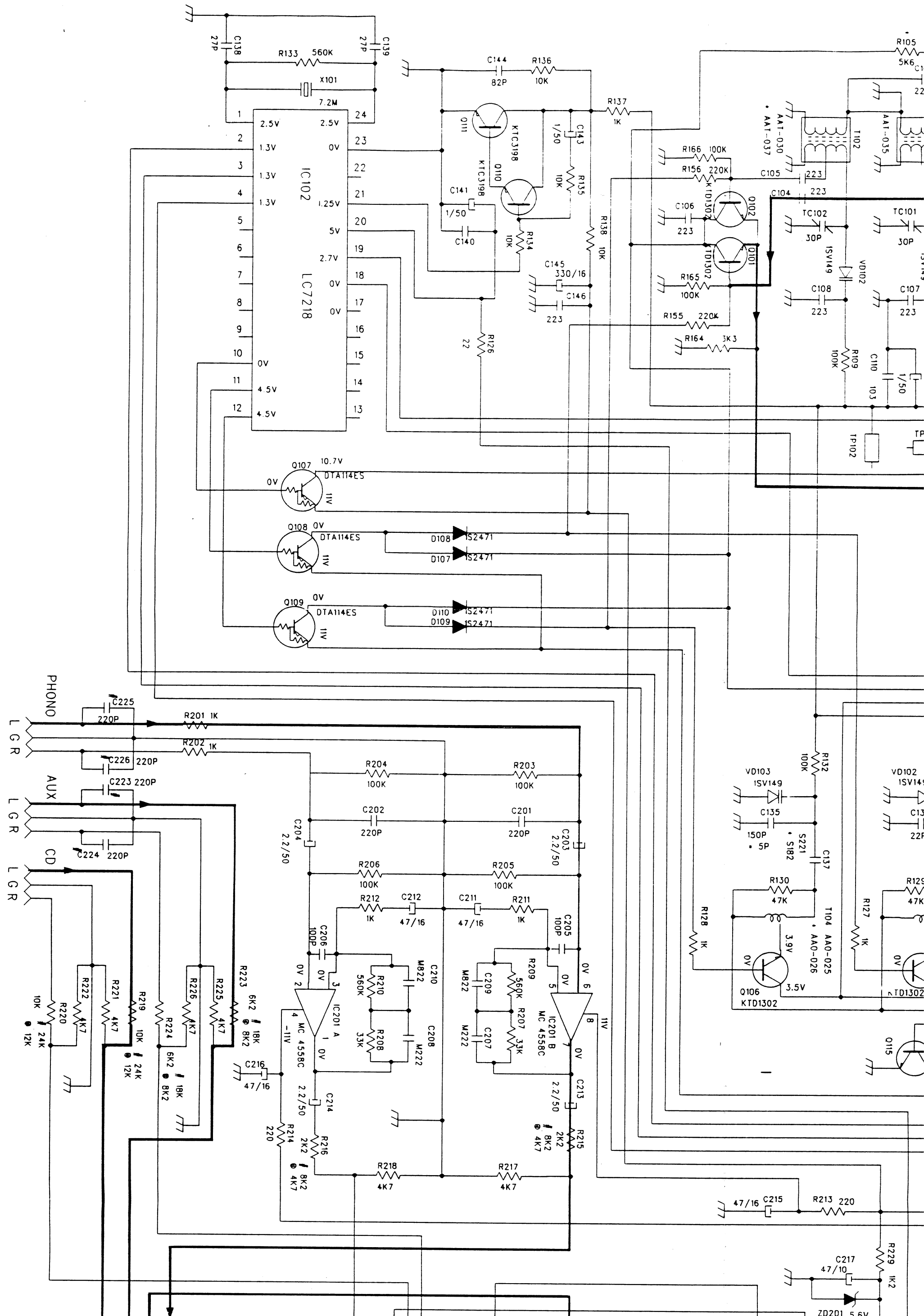
II. BLOCK DIAGRAM

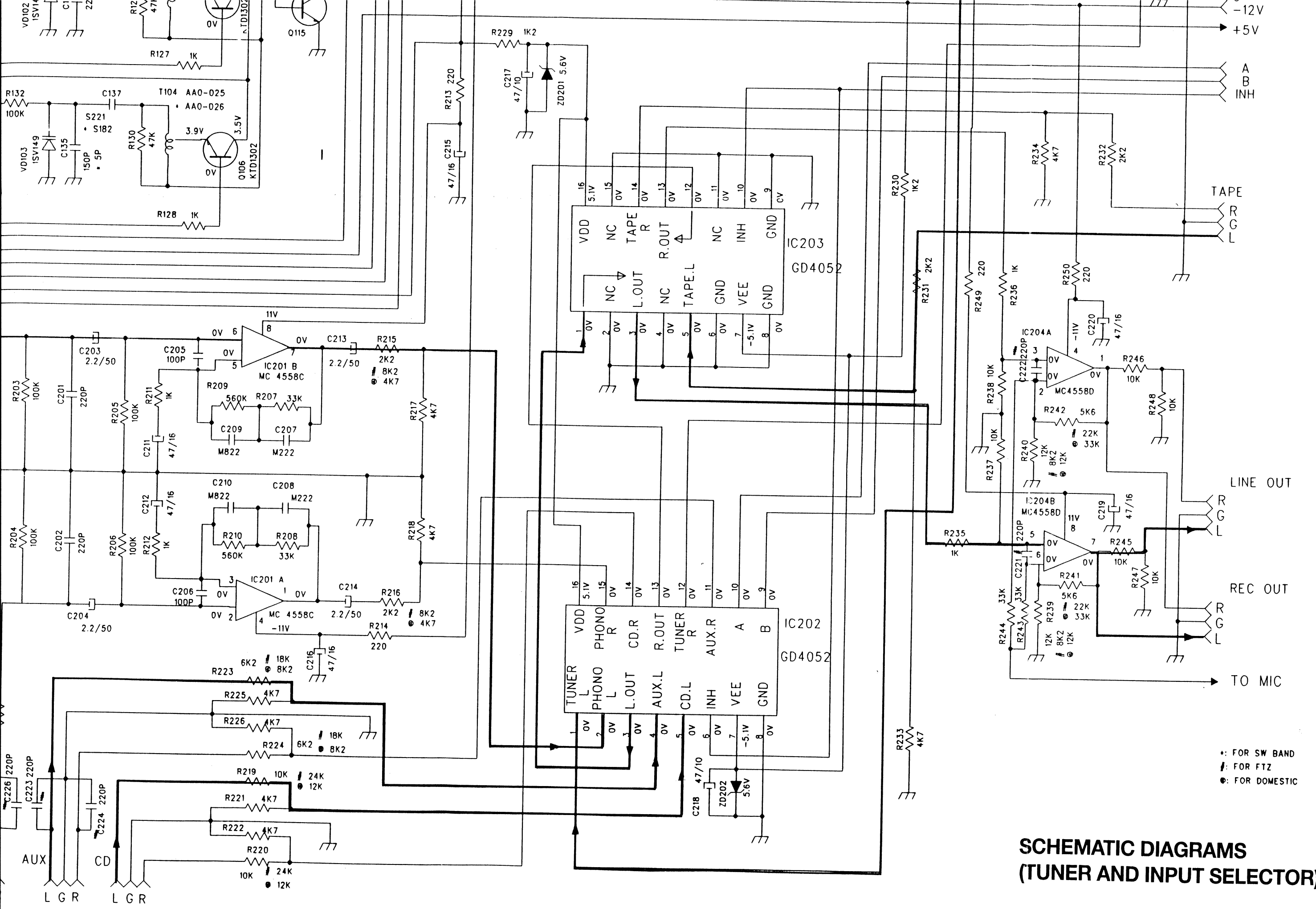


III. SCHEMATIC DIAGRAMS (TUNER AND INPUT SELECTOR)



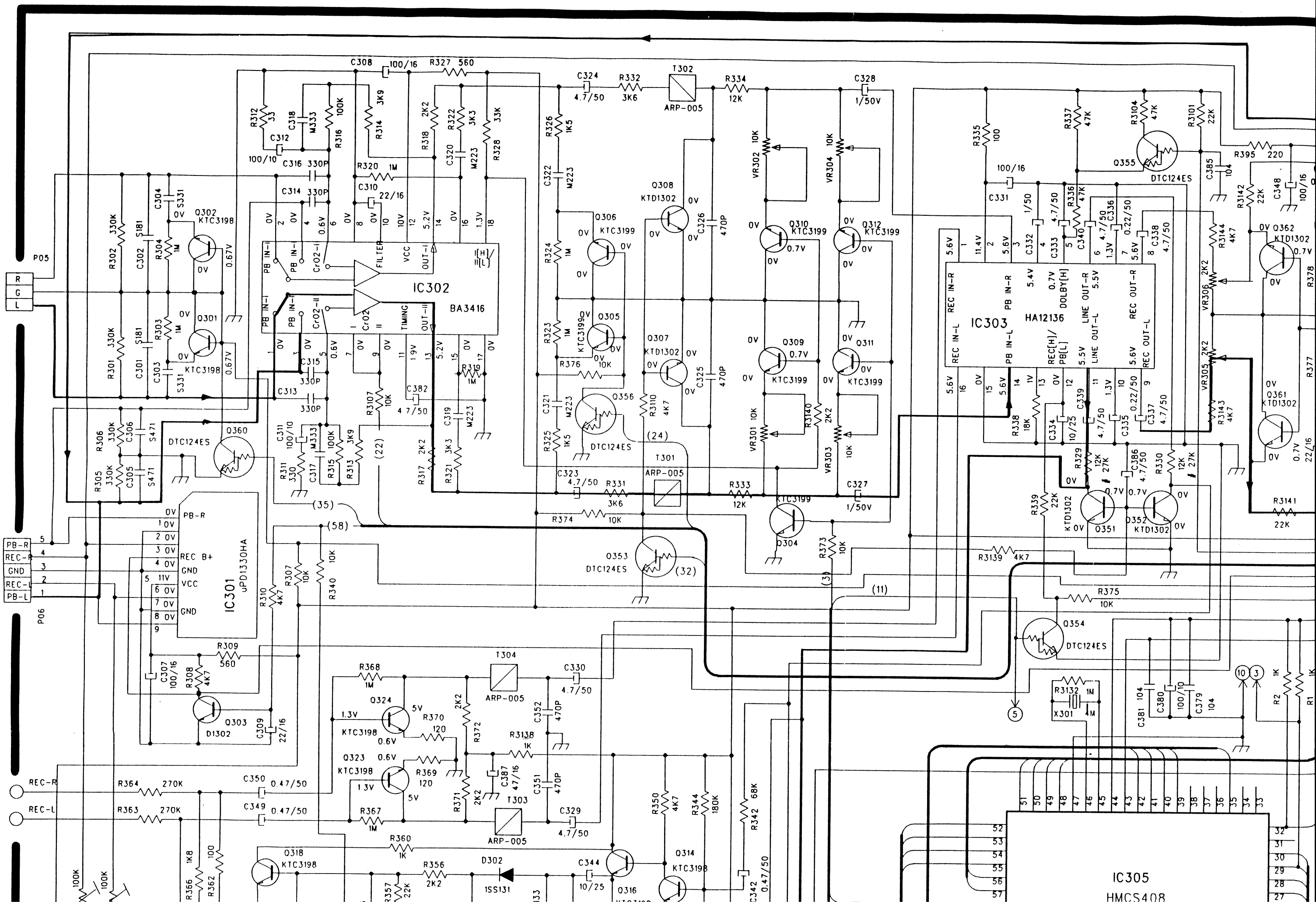
CONTROL LINE			FUNCTION
A	B	INH	
H	L	L	CD
*	*	H	TAPE
L	L	L	TUNER
L	H	L	PHONO
H	H	L	AUX


IC102
LC7218
X101
7.2M
C138 27P
C139 27P
R133 560K
C144 82P
R136 10K
R137 1K
Q111 KTC3198
Q110 KTC3198
C143 1/50
R135 10K
C141 1/50
C140
R134 10K
R138 10K
C145 330/16
C146 223
R126 22
R105 5K6
T102 AAT-030 • AAT-037 AAT-035
R166 100K
R156 220K
C105 223
C104 223
Q102 KTD1302
Q101 KTD1302
C106 223
TC102 30P
TC101 30P
R165 100K
R155 220K
R164 3K3
VD102 1SV149
C108 223
C107 223
R109 100K
C110 103
1/50
TP102
Q107 DTA114ES 10.7V 0V 11V
Q108 DTA114ES 0V 11V
Q109 DTA114ES 0V 11V
D108 1S2471
D107 1S2471
D110 1S2471
D109 1S2471
PHONO L G R
AUX L G R
CD L G R
C225 220P
C226 220P
C223 220P
C224 220P
R201 1K
R202 1K
R204 100K
R203 100K
C202 220P
C201 220P
C204 2.2/50
C203 2.2/50
R206 100K
R205 100K
R212 1K
C212 47/16
C211 47/16
R211 1K
C205 100P
C206 100P
R210 560K
R208 33K
C210 M822
C208 M222
C209 M822
C207 M222
R209 560K
R207 33K
IC201 A MC 4558C
IC201 B MC 4558C
-11V
C216 47/16
C214 2.2/50
C213 2.2/50
R214 220
R216 2K2 ● 8K2 ● 4K7
R215 2K2 ● 8K2 ● 4K7
R218 4K7
R217 4K7
R223 6K2 ● 18K ● 8K2
R226 6K2 ● 18K ● 8K2
R225 4K7
R224 4K7
R222 4K7
R221 4K7
R219 10K ● 24K ● 12K
R220 10K ● 24K ● 12K
R132 100K
VD103 1SV149
C135 150P • 5P
S221 • S182
C137
R130 47K
T104 AA0-025 • AA0-026
R128 1K
R127 1K
R129 47K
3.9V
Q106 KTD1302
3.5V
Q115
C213 47/16
R213 220
C217 47/10
R229 1K2
ZD201 5.6V



SCHEMATIC DIAGRAMS (TUNER AND INPUT SELECTOR)

III. SCHEMATIC DIAGRAMS (DECK)

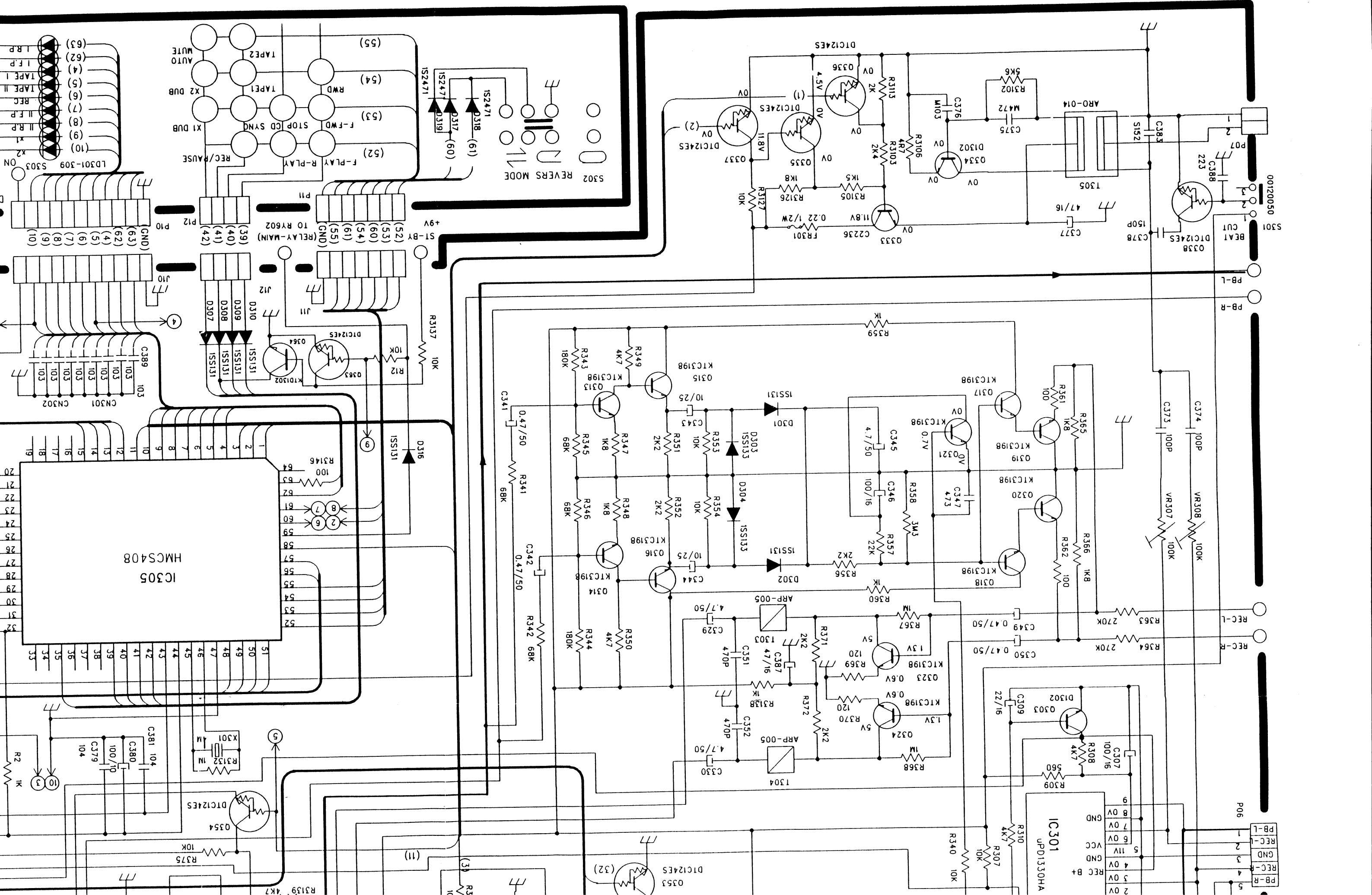


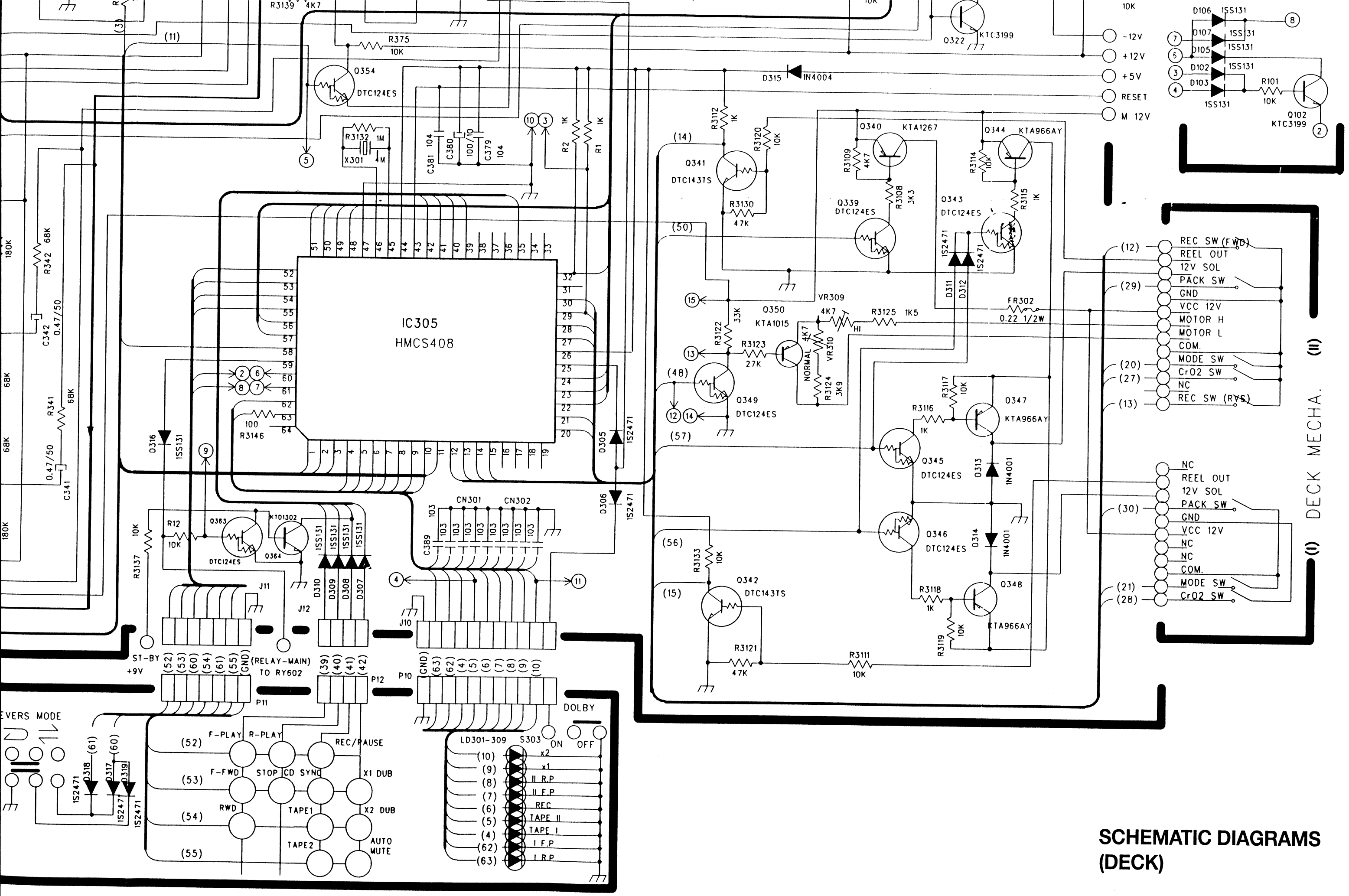
IC303 HA12136

IC305 HMCS408

IC304A IC304B MC4558S

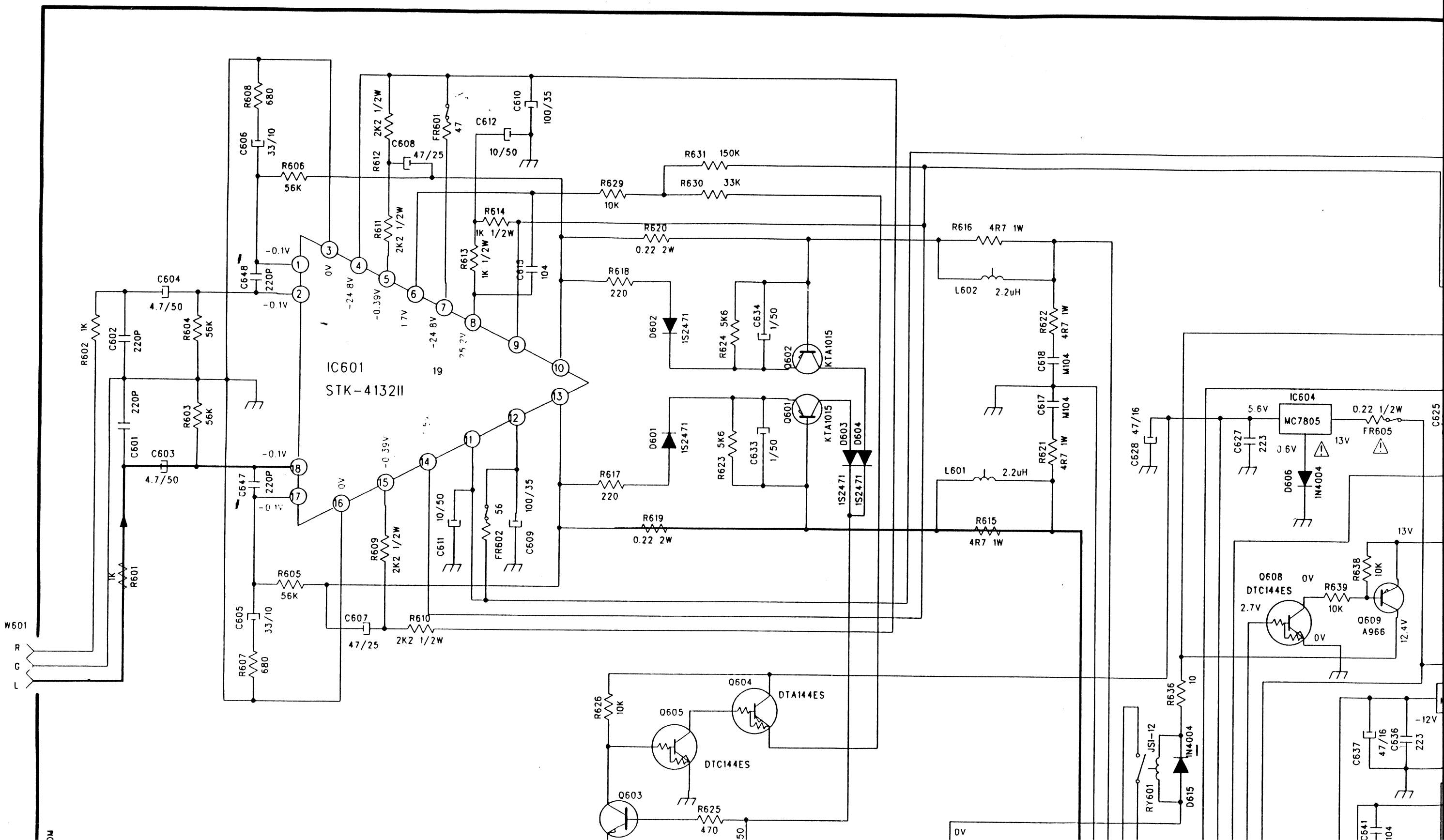
SUB-PCB
A4G-198

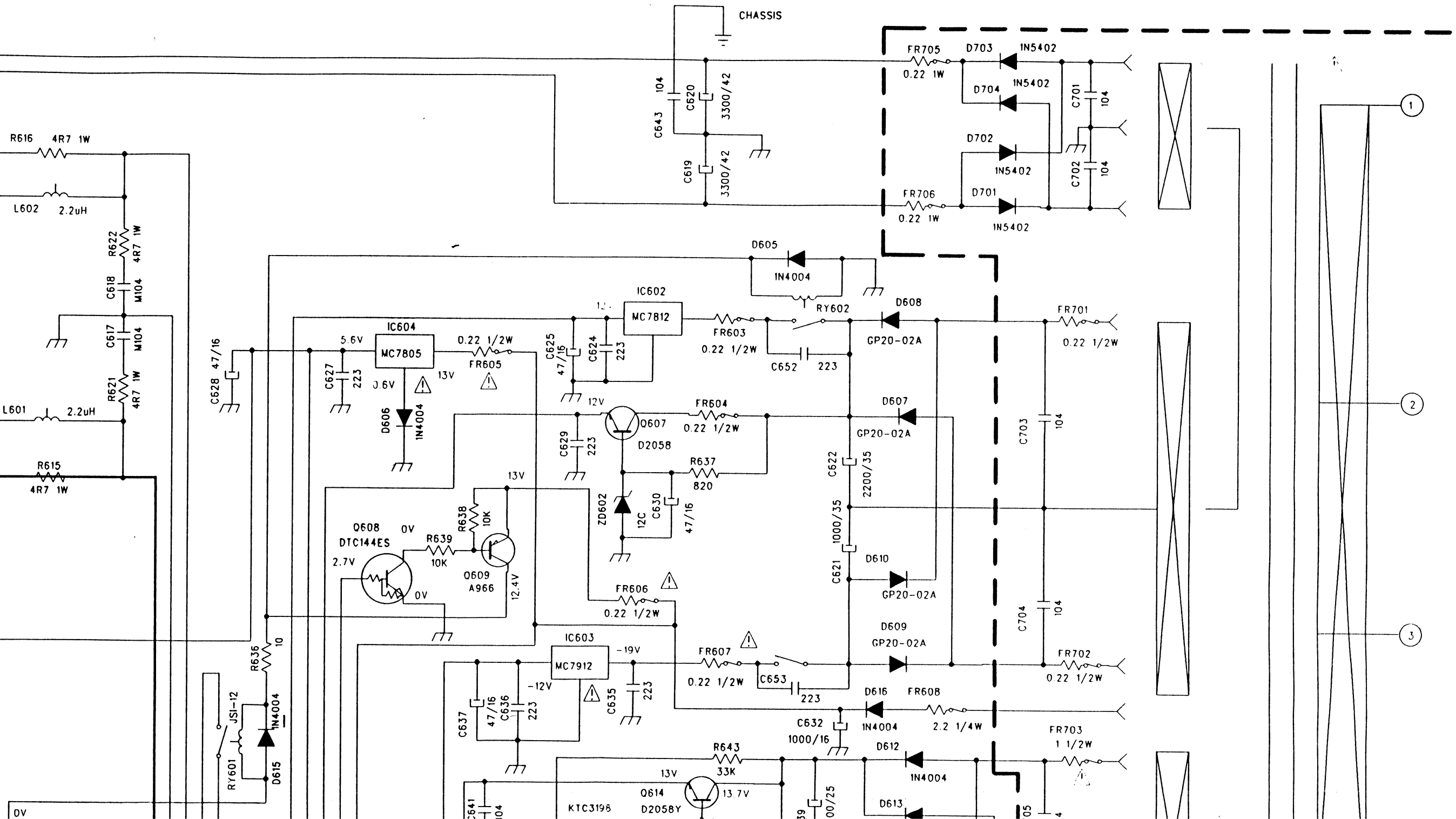

IC305
HMCS408
IC 301
μPD1330HA
S302 REVERS MODE
S301 BEAT CUT
S152
T305
T303
T304
ARP-005
ARP-014
LD301-309
CN301
CN302
P10
P11
P12
P06
P07
J10
J11
J12
TAPE1
TAPE2
AUTO MUTE
X1 DUB
X2 DUB
REC/PAUSE
F-PLAY
R-PLAY
F-FWD
STOP
CD SYNC
RWD
ST-BY
+9V
REC-L
REC-R
PB-L
PB-R
GND
VCC
REC B+
DTC124ES
KTC3198
KTD1302
IS2471
IS131
IS133
0.22 1/2W
FR301
C2236
VR307
VR308
100K
00120050



SCHEMATIC DIAGRAMS (DECK)

III. SCHEMATIC DIAGRAMS (POWER AND AMP)




CHASSIS
C643 104
C620 3300/42
C619 3300/42
FR705 0.22 1W
D703 1N5402
D704 1N5402
D702 1N5402
FR706 0.22 1W
D701 1N5402
C701 104
C702 104
R616 4R7 1W
L602 2.2uH
R622 4R7 1W
C618 M104
C617 M104
R621 4R7 1W
L601 2.2uH
R615 4R7 1W
D605 1N4004
IC602 MC7812
RY602
D608 GP20-02A
FR701 0.22 1/2W
IC604 MC7805
5.6V
0.22 1/2W FR605
13V
0.6V
D606 1N4004
C627 223
C628 47/16
C625 47/16
C624 223
FR603 0.22 1/2W
C652 223
12V
Q607 D2058
FR604 0.22 1/2W
D607 GP20-02A
C629 223
R637 820
ZD602 12C
C630 47/16
C622 2200/35
C703 104
1000/35 C621
D610 GP20-02A
C704 104
Q608 DTC144ES
0V
2.7V
R639 10K
R638 10K
Q609 A966
12.4V
FR606 0.22 1/2W
D609 GP20-02A
FR702 0.22 1/2W
IC603 MC7912
-19V
-12V
FR607 0.22 1/2W
C653 223
C635 223
C636 47/16
C637
R636 10
D616 1N4004
FR608 2.2 1/4W
C632 1000/16
FR703 1 1/2W
D612 1N4004
R643 33K
13V
Q614 KTC3198
13.7V
D2058Y
D613
JS1-12
RY601
D615 1N4004
0V
1
2
3

MAIN PCB

A1U-229

#:FOR FTZ.

WARNING: ⚠ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENED PARTS.

AVERTISSMENT: ⚠ ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SECURITE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL. NE REMPACER QUE PIECES RECOMMANDEES PAR LE FABRICANT.

W601
R
G
L

C605 33/10
R607 680
C607 47/25
R610 2K2 1/2W

Q604 DTA144ES
Q605 DTC144ES
R626 10K
Q603 KTD1302
R625 470
C616 1/50

R641 10K
0.7V
Q610 C2120Y
0V
R640 47K

Q609 A966
0V
12.4V

R636 10
JS1-12
RY601
1N4004
D615

C637 47/16
C636 223
C641 104
KTC3
R642 10K
C640 4.7/50

TO DECK U-COM

J103
RESET
SURROUND ON:H OFF:L
POWER RELAY ON:H OFF:L
CD CONT. (ON:H OFF:L)
+12V
-12V
MOTOR B+

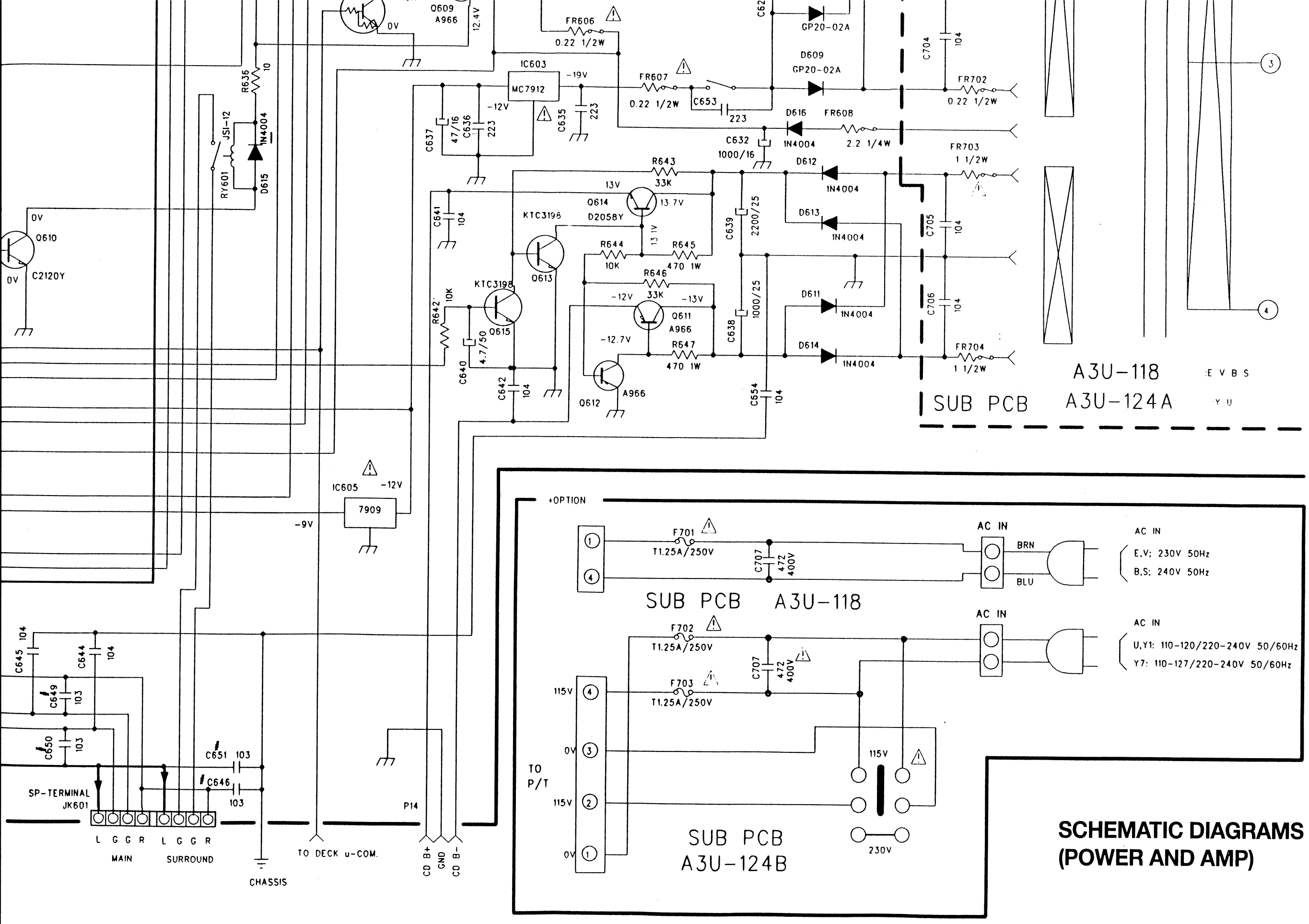
IC605 -12V
7909
-9V

J102
+5V
LAMP B+
SERIAL IN
SERIAL OUT
C
B
A
L
G
R
MIC
TO TUNER

C645 104
C644 104
C649 103
C650 103
C651 103
C646 103

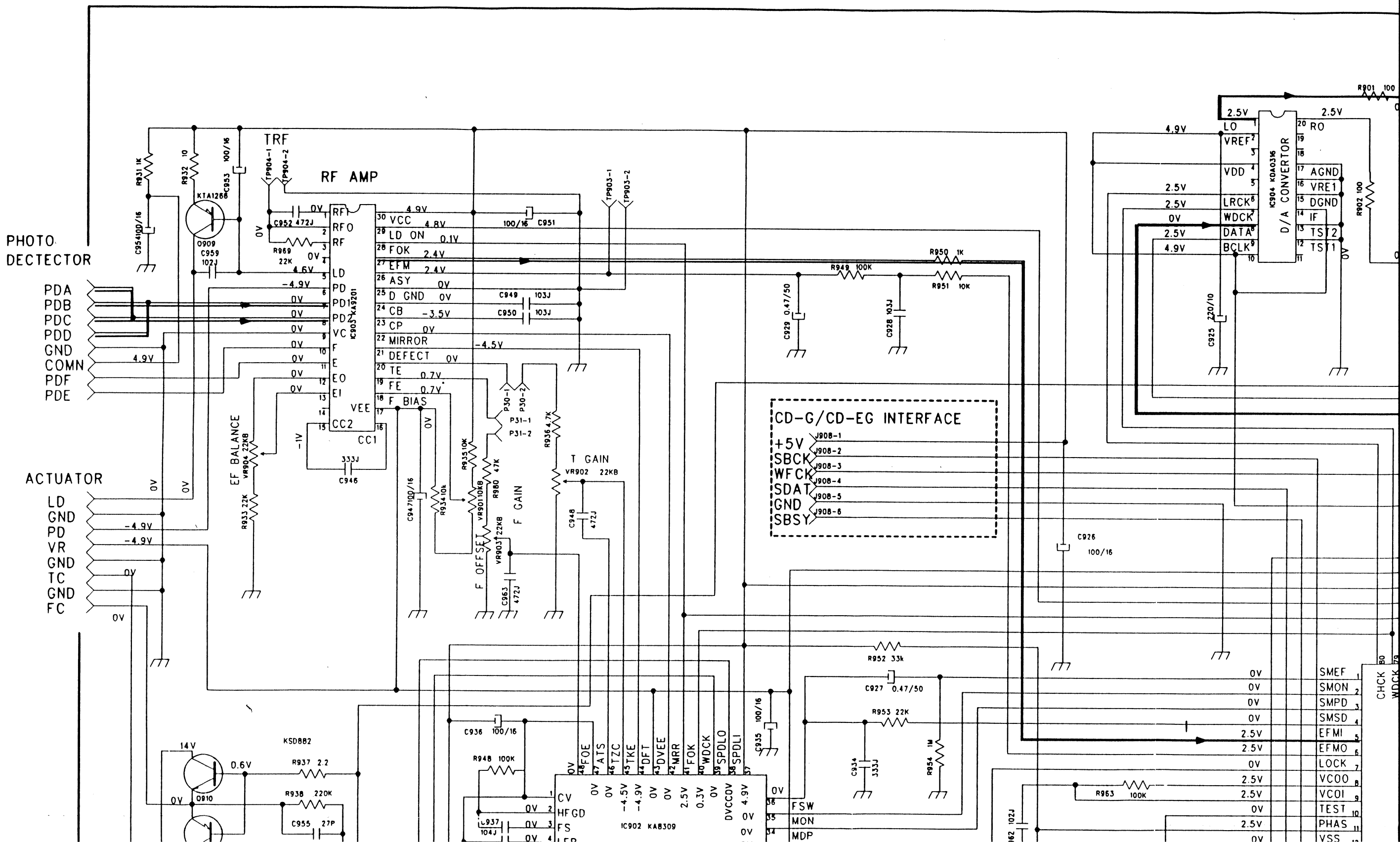
P601
W602
SP-TERMINAL
JK601
P14

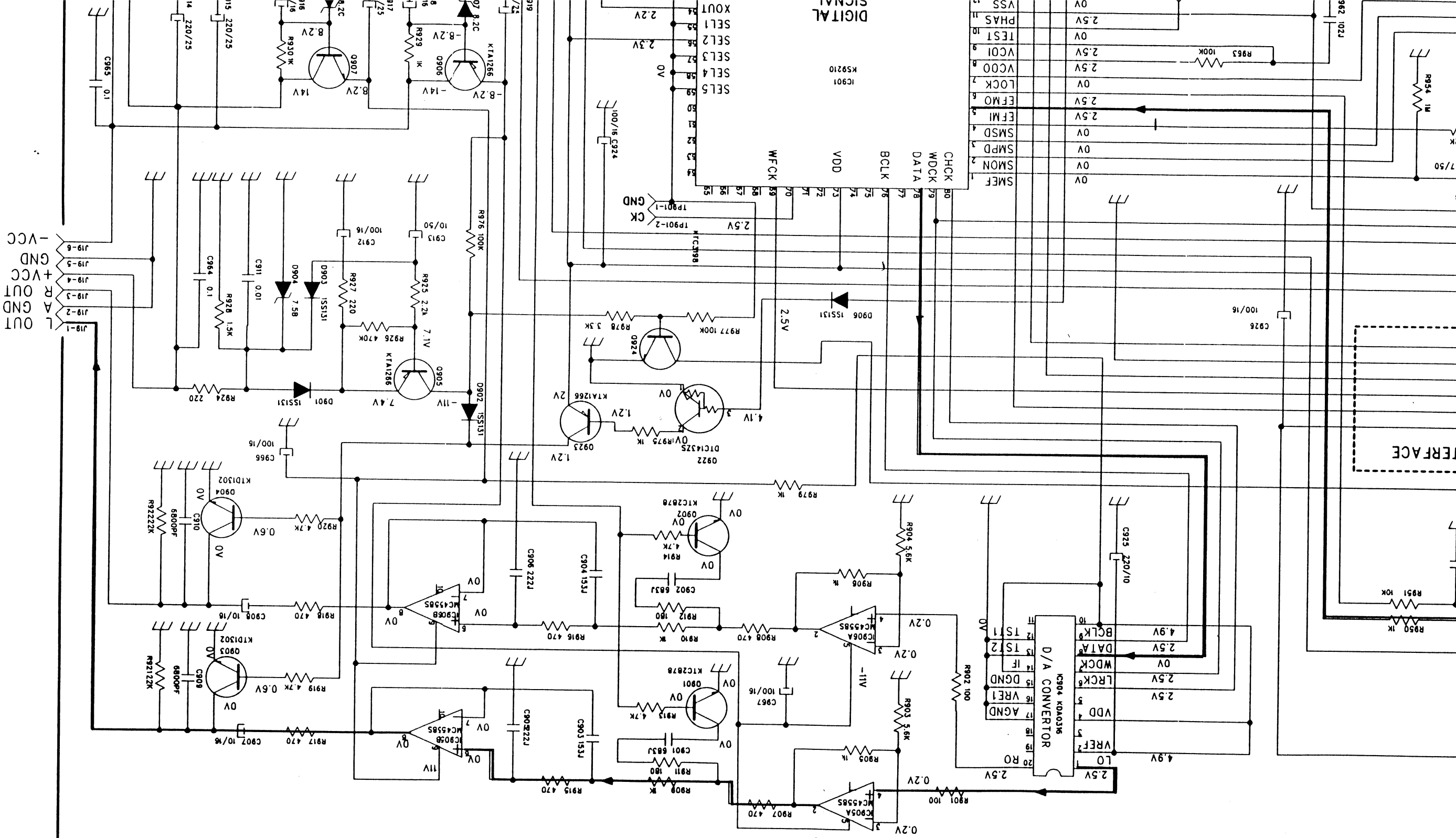
L G G R
TO FRONT PCB
R G G L
L G G R
MAIN
L G G R
SURROUND
TO DECK u-COM.
CD B+
GND
CD B-
CHASSIS

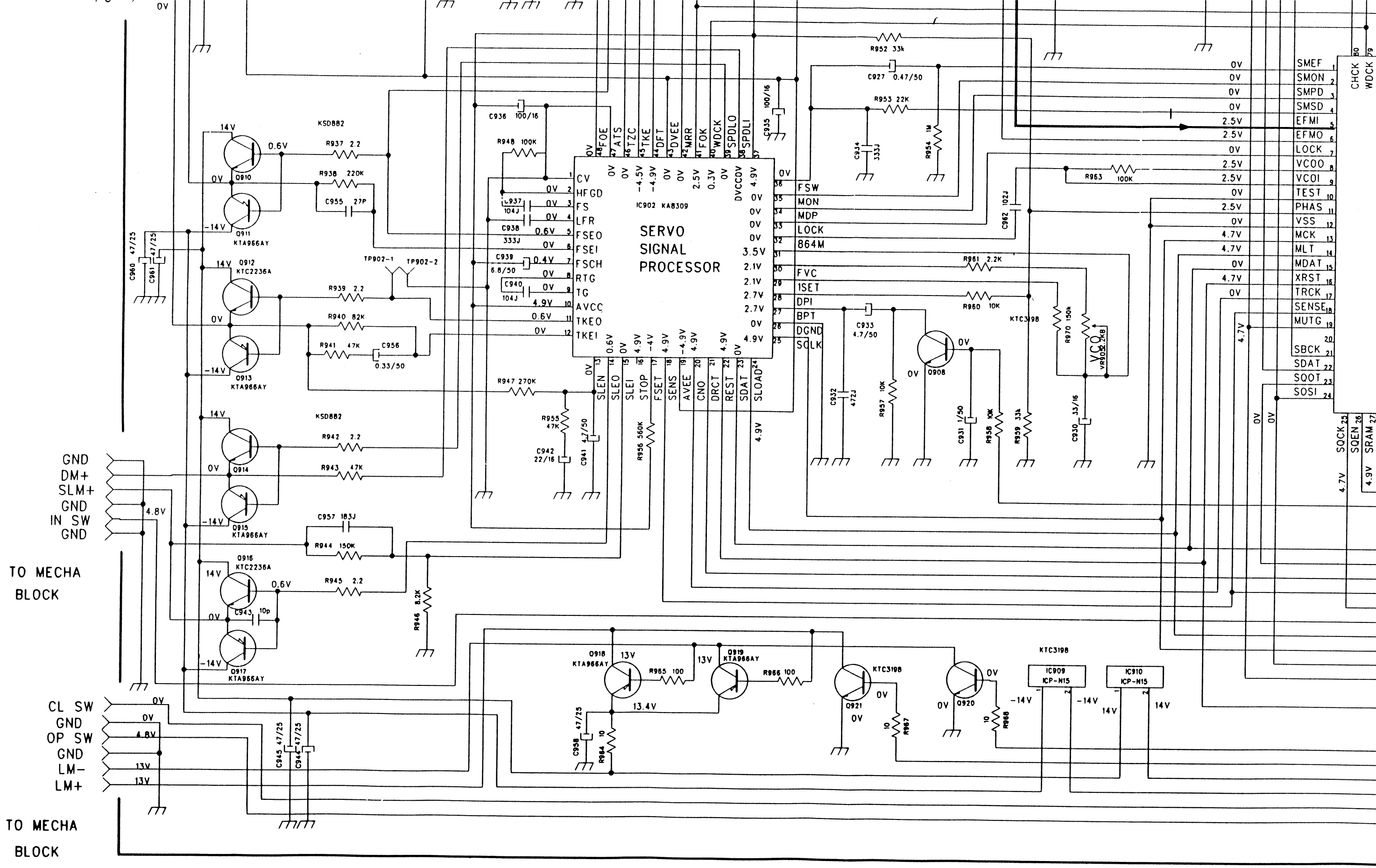


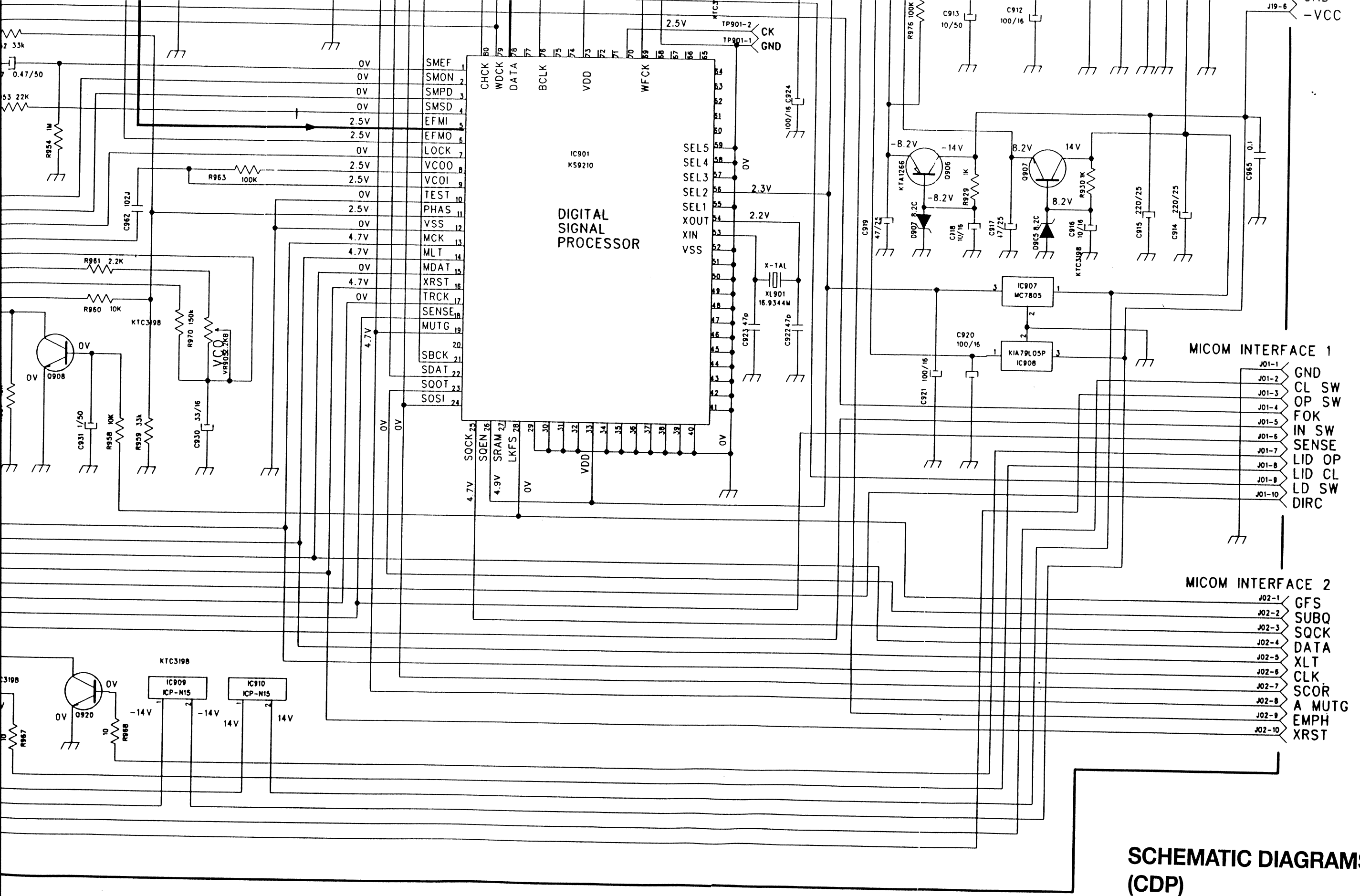
SCHEMATIC DIAGRAMS (POWER AND AMP)

III. SCHEMATIC DIAGRAMS (CDP)



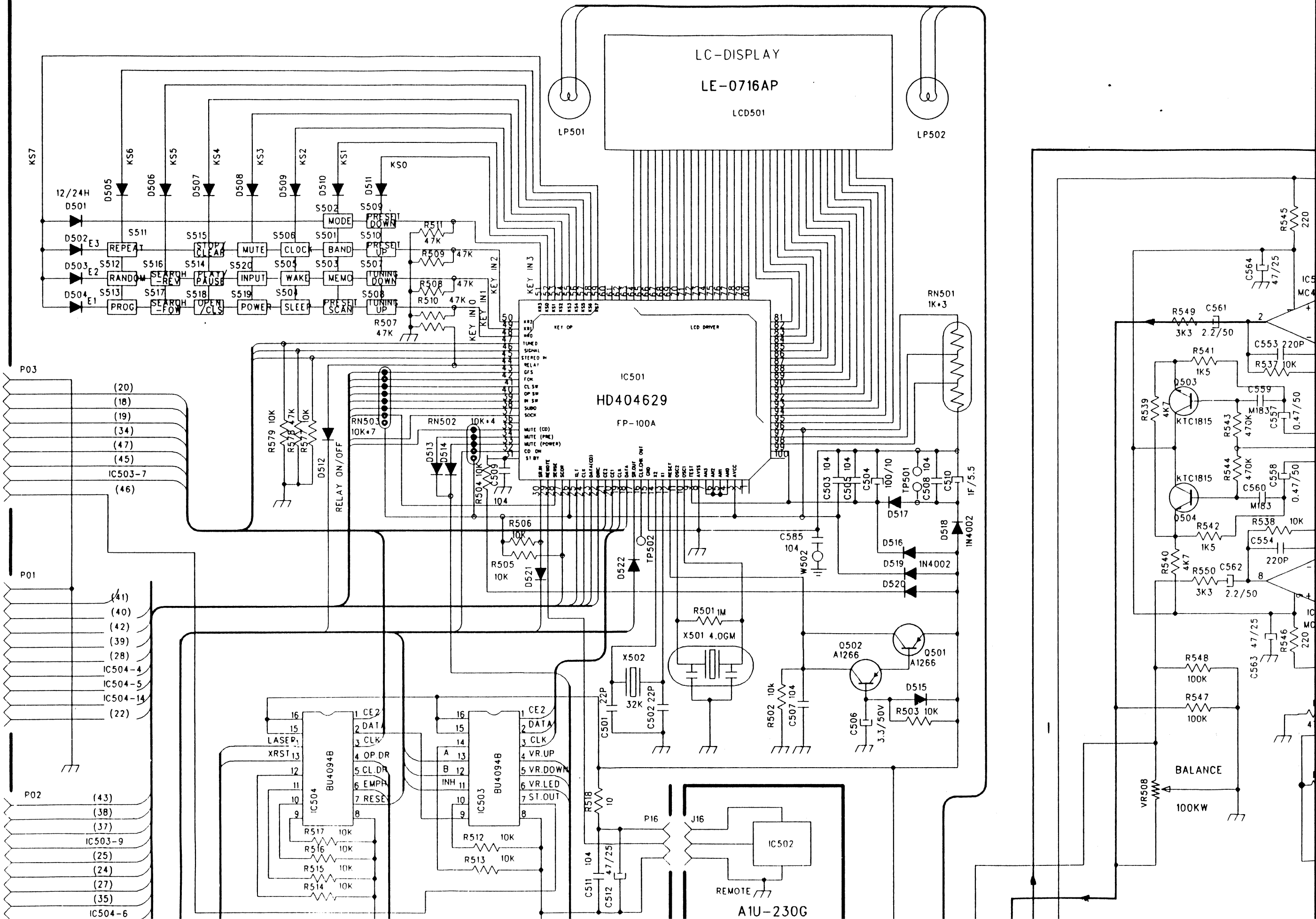

L OUT
A GND
R OUT
+VCC
GND
-VCC
J19-1
J19-2
J19-3
J19-4
J19-5
J19-6
DIGITAL SIGNAL
IC901
KS9210
SMEF
SMON
SMPD
SMSD
EFMI
EFMO
LOCK
VCO0
VCO1
TEST
PHAS
VSS
XOUT
SEL1
SEL2
SEL3
SEL4
SEL5
WFCK
VDD
BCLK
DATA
WDCK
CHCK
CK
GND
TP901-1
TP901-2
D906 1SS131
Q924
Q922
DTC143ZS
Q923
KTA1266
Q905
KTA1286
Q904
KTC2878
Q902
Q901
KTD1302
Q903
Q907
Q908
Q909
Q910
IC906A
IC906B
NJM4558S
IC904 KDA0316
D/A CONVERTER
DGND
AGND
VRE1
VREF
LRCK
BCLK
DATA
WDCK
VDD
LO
RO
TS1
TS2
IF
R901 100
R902 100
R903 5.6K
R904 5.6K
R905 1K
R906 1K
R907 470
R908 470
R909 1K
R910 1K
R911 180
R912 180
R913 4.7K
R914 4.7K
R915 470
R916 470
R917 470
R918 470
R919 4.7K
R920 4.7K
R921 22K
R922 22K
R923 1.5K
R924 220
R925 2.2K
R926 470K
R927 220
R928 7.5B
R929 1K
R930 1K
R931 10K
R950 1K
R954 1M
R962 100K
R963 100K
R976 100K
R977 100K
R978 3.3K
R979 1K
C901 683J
C902 683J
C903 153J
C904 153J
C905 0.1
C906 222J
C907 10/16
C908 10/16
C909 222J
C910 6800PF
C911 0.01
C912 100/16
C913 10/50
C924 100/16
C925 220/10
C926 100/16
C962 102J
C964 0.1
C966 100/16
C967 100/16
220/25
8.2V
-8.2V
14V
-14V
7.4V
-11V
7.1V
1.2V
4.1V
2.5V
0.6V
0.2V
-11V
4.9V
0V


IC902 KA8309
SERVO
SIGNAL
PROCESSOR
CV
HFGD
FS
LFR
FSEO
FSEI
FSCH
RTG
TG
AVCC
TKEO
TKEI
FOE
ATS
TZC
TKE
DFT
DVEE
MRR
FOK
WDCK
SPDLO
SPDLI
DVCCOV
FSW
MON
MDP
LOCK
864M
FVC
ISET
DPI
BPT
DGND
SCLK
SLEN
SLEO
SLEI
STOP
FSET
SENS
AVEE
CNO
DRCT
REST
SDAT
SLOAD
SMEF
SMON
SMPD
SMSD
EFMI
EFMO
LOCK
VCOO
VCOI
TEST
PHAS
VSS
MCK
MLT
MDAT
XRST
TRCK
SENSE
MUTG
SBCK
SDAT
SQOT
SOSI
SOCK
SQEN
SRAM
CHCK
WDCK
KSD882
KTA966AY
KTC2236A
KTC3198
Q910
Q911
Q912
Q913
Q914
Q915
Q916
Q917
Q918
Q919
Q920
Q921
Q908
R937 2.2
R938 220K
R939 2.2
R940 82K
R941 47K
R942 2.2
R943 47K
R944 150K
R945 2.2
R946 8.2K
R947 270K
R948 100K
R952 33k
R953 22K
R954 1M
R955 47K
R956 560K
R957 10K
R958 10K
R959 33k
R960 10K
R961 2.2K
R963 100K
R964 10
R965 100
R966 100
R967 10
R968 10
R970 150k
VR902 2K8
C927 0.47/50
C931 1/50
C932 472J
C933 4.7/50
C934 333J
C935 100/16
C936 100/16
C937 104J
C938 333J
C939 6.8/50
C940 104J
C941 4.7/50
C942 22/16
C943 10p
C944 47/25
C945 47/25
C955 27P
C956 0.33/50
C957 183J
C958 47/25
C960 47/25
C961 47/25
C962 102J
IC909 ICP-N15
IC910 ICP-N15
TP902-1
TP902-2
GND
DM+
SLM+
GND
IN SW
GND
TO MECHA BLOCK
CL SW
GND
OP SW
GND
LM-
LM+
TO MECHA BLOCK



SCHEMATIC DIAGRAMS (CDP)

III. SCHEMATIC DIAGRAMS (FRONT)



DISPLAY

0716AP

LCD501

LP502

RN501
1K*3

63HZ 160HZ 400HZ 1KHZ 2.5K 6.3K 16K

VR501-VR507

IC505
M5229P

IC506
M5229P

IC508A
MC4558S

IC508B
MC4558S

IC507A
MC4558S

IC507B
MC4558S

SW501 SUPER BASS

BALANCE
100KW

VR508

Q501 A1266
Q502 A1266
Q503 KTC1815
Q504 KTC1815

D515
D516
D517
D518 1N4002
D519 1N4002
D520

W501
W502

TP501

IC502

EMOTE

TO CD PCB

P01
GND
CL/SW (41)
OP/SW (40)
FOK. (42)
IN SW (39)
SENSE (28)
OP. DR IC504-4
CL. DR IC504-5
LASER IC504-14
DIRC (22)

P02
GFS (43)
SUBQ (38)
SOCK (37)
DATA IC503-9
XLT (25)
CLOCK (24)
SCOR (27)
MUTE (35)
EMPH IC504-6
XRST IC504-13

TO MAIN PCB (PRE)

P04
+5V
LAMP
LAMP
SERIAL OUT (17)
SERIAL IN (30)
INH IC503-11
B IC503-12
A IC503-13
L-IN
GND
R-IN
MIC

TO MAIN PCB (AMP+POWER)

P05
RESET IC504-7
SURROUND
CD.CONT. (32)
RELAY (44)
+12V
GND
-12V
MOTOR B+
MOTOR GND
+13V

R505 10K
D521
D522
TP502
W502
104
D516
D519 1N4002
D520
R501 1M
X501 4.0GM
X502 32K
C501 22P
C502 22P
R502 10k
C507 104
Q502 A1266
Q501 A1266
C506 3.3/50V
D515
R503 10K
R540 4K7
R550 3K3
C562 2.2/50
C554 220P
R546
C563 47/25
R548 100K
R547 100K
BALANCE
VR508 100KW

IC504 BU4094B
IC503 BU4094B
LASER
XRST
CE2
DATA
CLK
OP.DR
CL.DR
EMPH
RESET
A
B
INH
VR.UP
VR.DOWN
VR.LED
ST.OUT
R517 10K
R516 10K
R515 10K
R514 10K
R512 10K
R513 10K
R518 10
C511 104
C512 47/25
P16
J16
IC502
REMOTE
A1U-230G

R562 220
ZD501 9.1B
R561 82K
KTC1815
Q507
C570 680P
C572 4.7/50
R560 1K2
VR509 20KB
CW
C571 M183
C573 4.7/50
R556 4K7
C569 680P
R554 220K
Q506 KTC1815
R555 4.7K
C566 220/16
C568 4.7/50
R553 4K7
C567 680P
R552 220K
Q505 KTC1815
R557 470
R551 47K
C575 0.33/50
J08
P08
A1U-230E
JK502
MIC
C574 10/25
R558 4K7

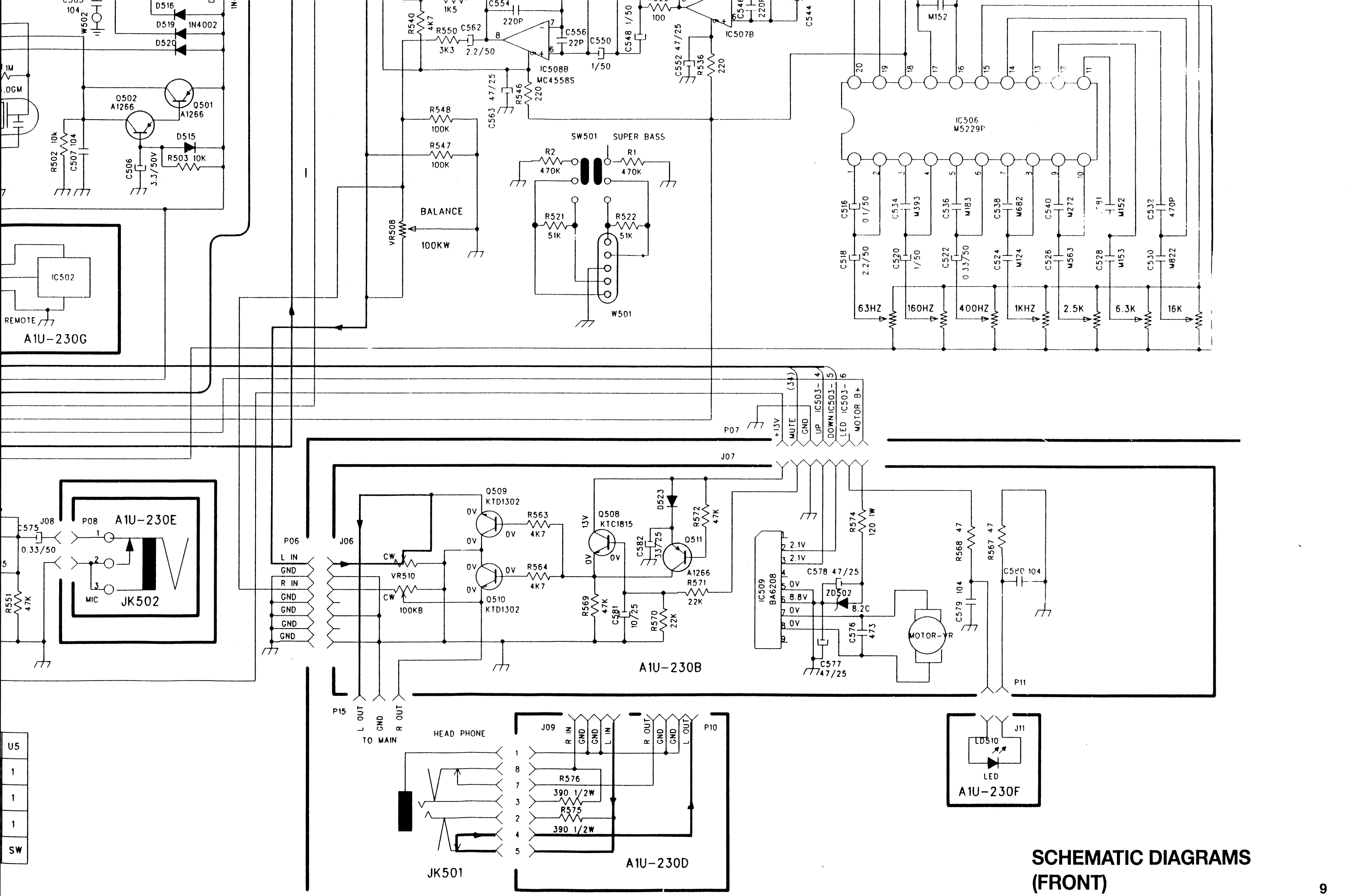
SW502
SURROUND

R573 330
ZD503 9.1B

A1U-230A

	E.B	K. V.S	USA	U8	U5
E1	0	0	0	1	1
E2	0	0	1	0	1
E3	0	1	0	0	1
	LW	2	2	SW	SW

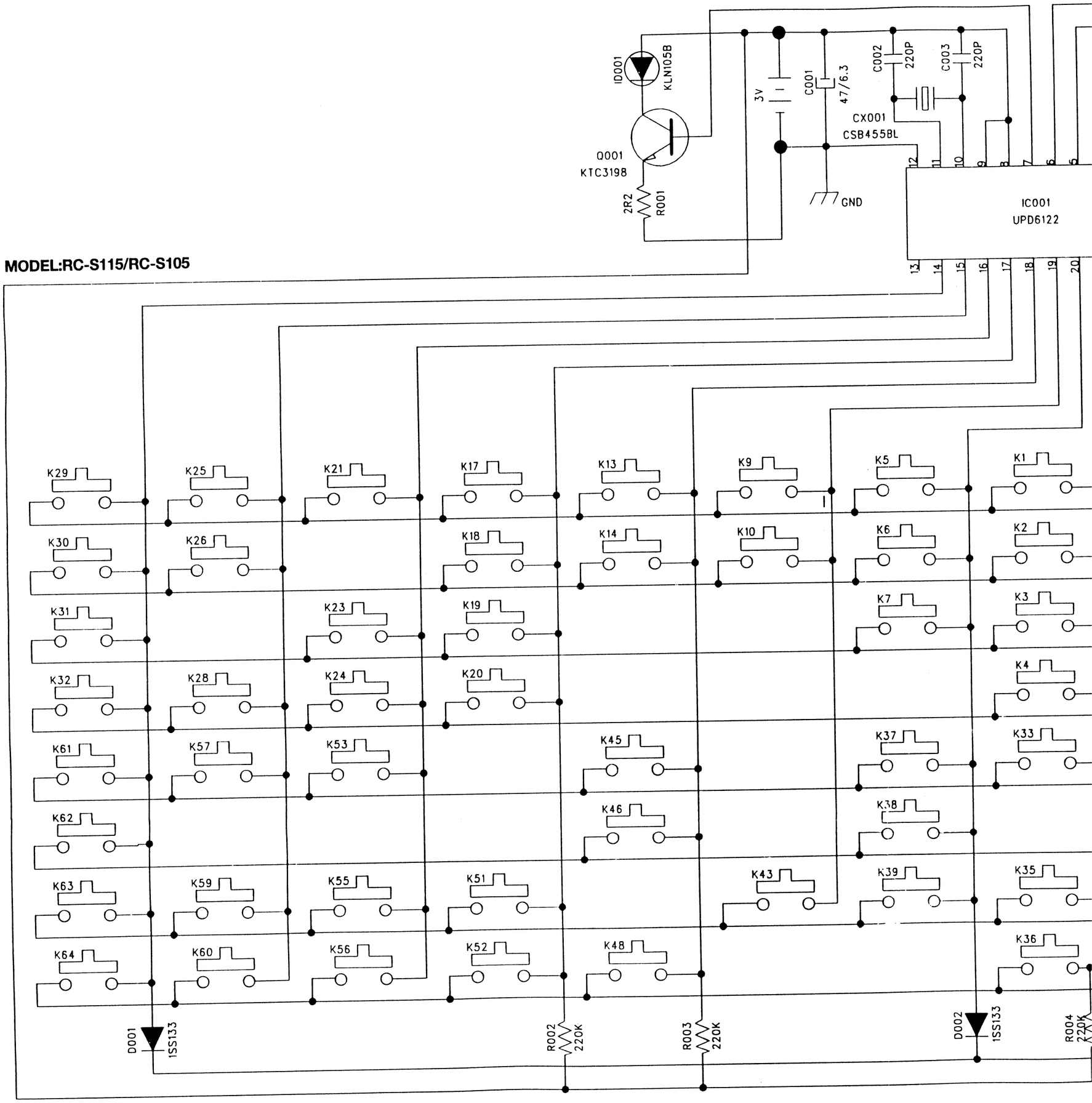
P06
L IN
GND
R IN
GND
GND
GND
GND
J06
CW
VR510
CW
100KB
Q509 KTD1302
Q510 KTD1302
0V
P15
L OUT
GND
R OUT
TO MAIN
HEAD PHONE
JK501

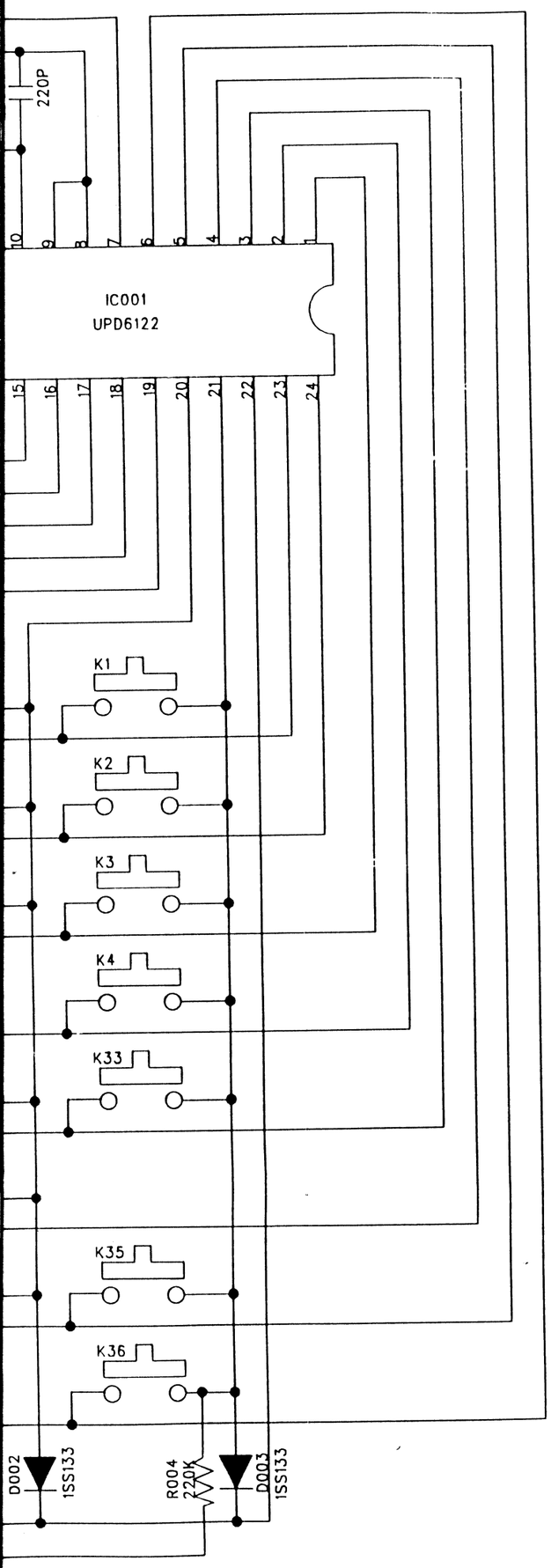


SCHEMATIC DIAGRAMS (FRONT)

III. SCHEMATIC DIAGRAMS (REMOCON)

MODEL:RC-S115/RC-S105





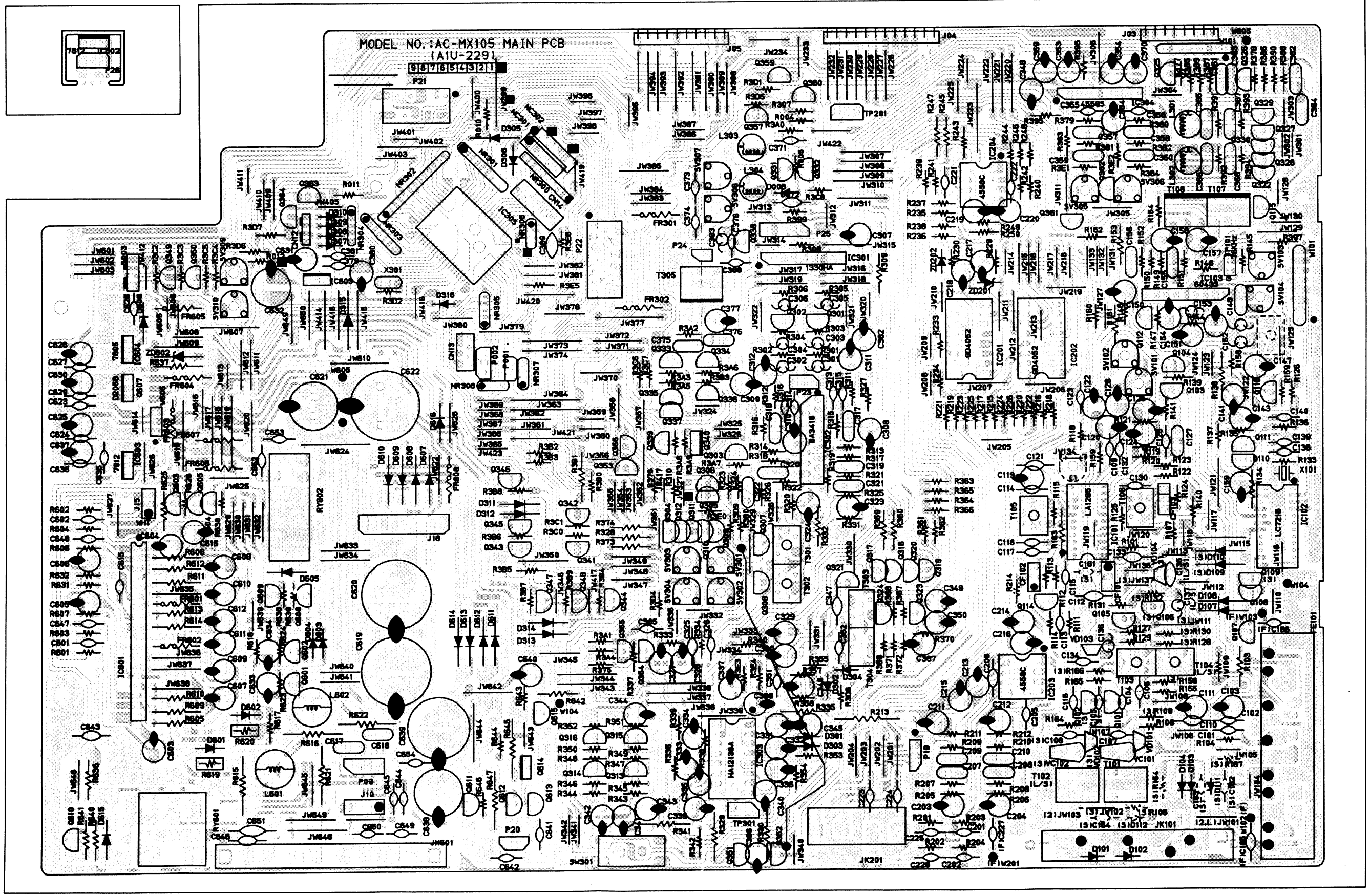
*.KEY NAME

K1 : CD STOP (■)
K2 : INPUT TUNER
K3 : [6]
K4 : REC/PAUSE
K5 : INPUT TAPE
K6 : CD PLAY/PAUSE
K7 : [+10]
K9 : VOLUME DOWN
K10 : INPUT PHONO
K13 : CD SKIP- (⏮)
K14 : CD REPEAT
K15 : AUTO MUTE
K17 : VOLUME MUTE
K18 : INPUT AUX
K21 : CD SERCH+ (⏩)
K25 : POWER ON/STANDBY
K26 : INPUT CD
K28 : TAPE I FWD (▷)
K29 : CD SERCH- (⏪)
K30 : CD PROGRAM
K31 : [5]
K32 : [4]
K33 : [1]
K35 : TAPE II FF (⏩)
K36 : [9]
K37 : [2]
K38 : [0]
K39 : TAPE I FF (⏩)
K43 : VOLUME UP
K45 : SOUND CARACTER UP
K48 : RANDOM
K51 : CD SKIP+ (⏭)
K53 : [7]
K55 : TAPE I REW (⏪)
K56 : TAPE II REW (⏪)
K57 : [8]
K59 : TAPE II REV (◁)
K60 : TAPE I REV (◁)
K61 : TAPE II STOP (■)
K62 : [3]
K63 : TAPE II FWD (▷)
K64 : TAPE I STOP (■)

SCHEMATIC DIAGRAMS (REMOCON)

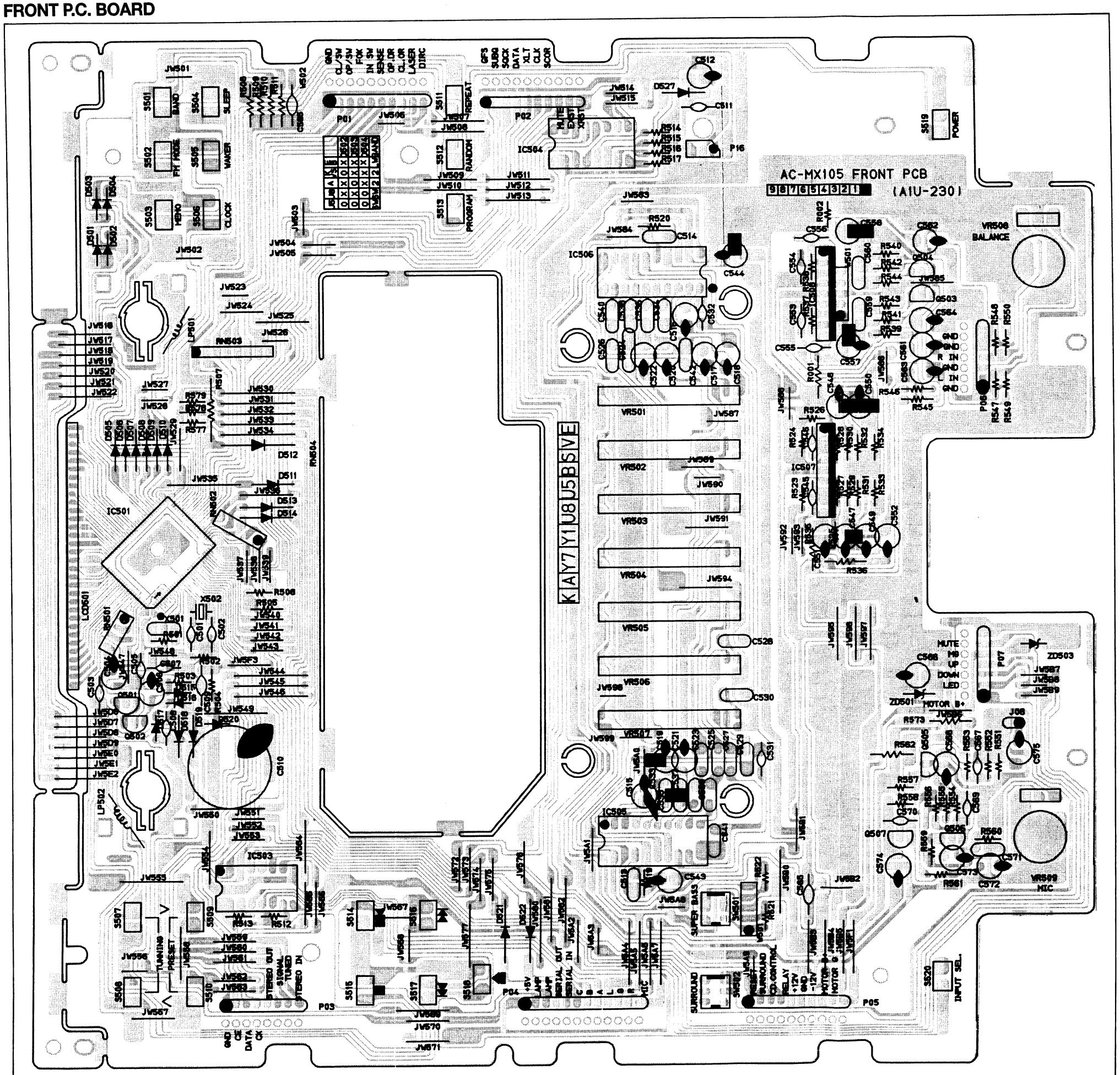
IV. P.C. BOARDS (BOTTOM VIEW)

REGULATOR P.C. BOARD **MAIN P.C. BOARD**

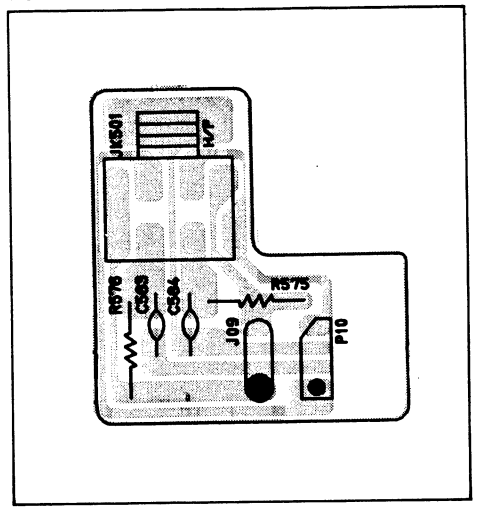


IV. P.C. BOARDS (BOTTOM VIEW)

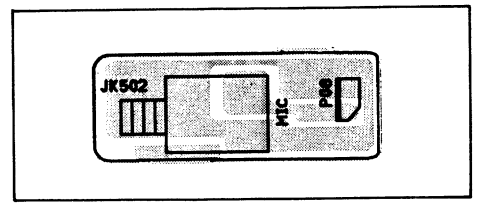
FRONT P.C. BOARD



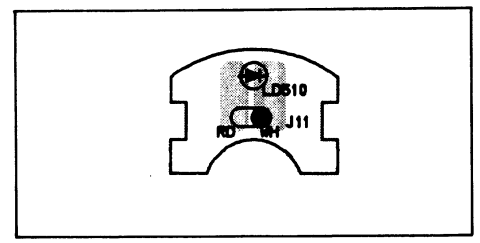
H/P P.C. BOARD



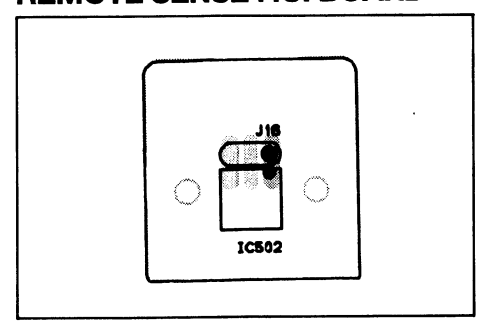
MIC JACK P.C. BOARD



LED P.C. BOARD

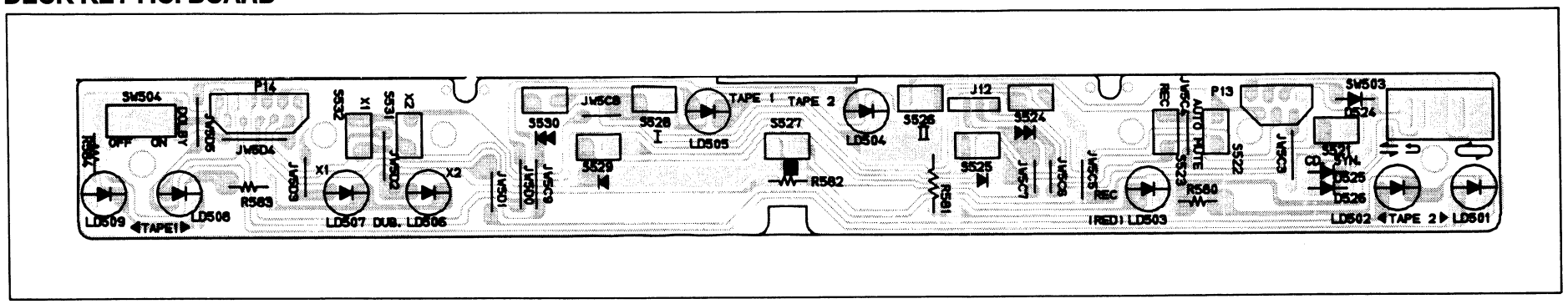


REMOTE SENSE P.C. BOARD

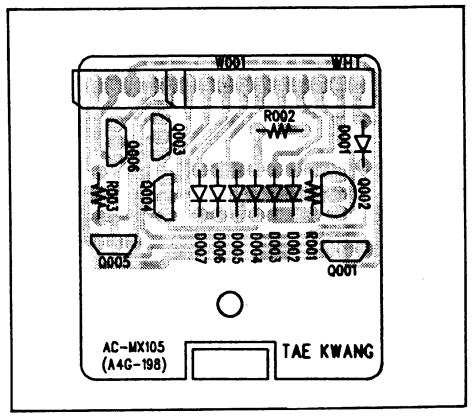


IV. P.C. BOARDS (BOTTOM VIEW)

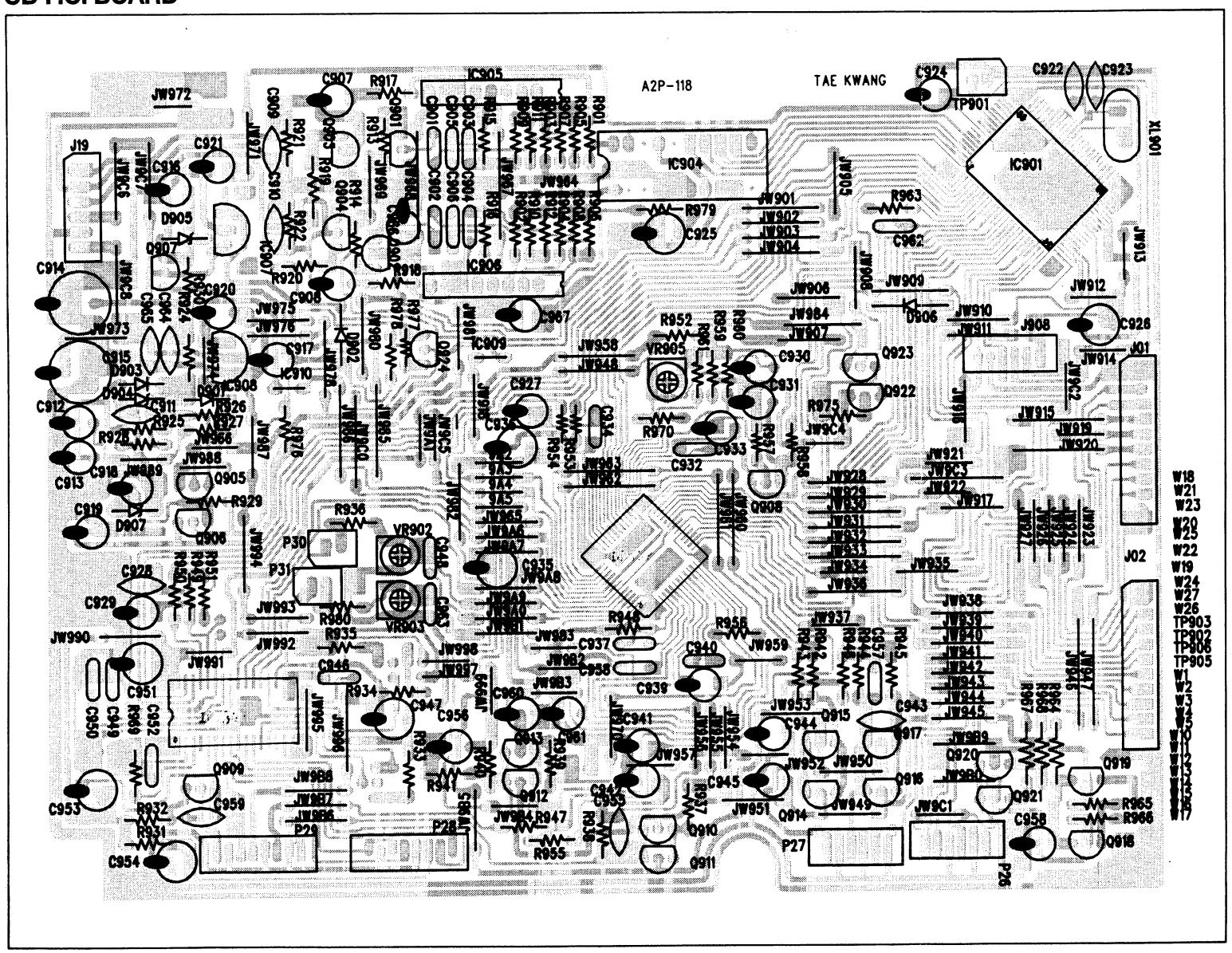
DECK KEY P.C. BOARD



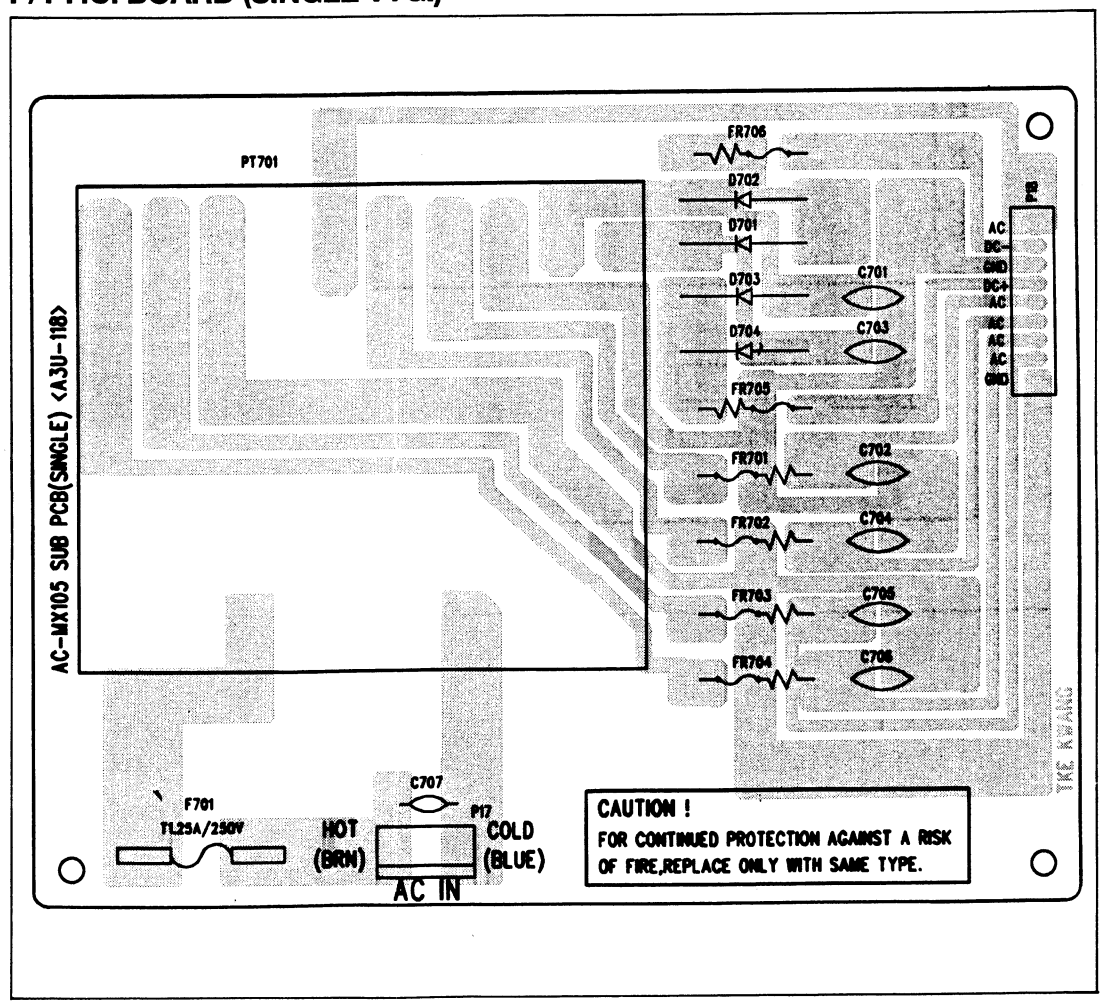
DECK SUB P.C. BOARD



CD P.C. BOARD

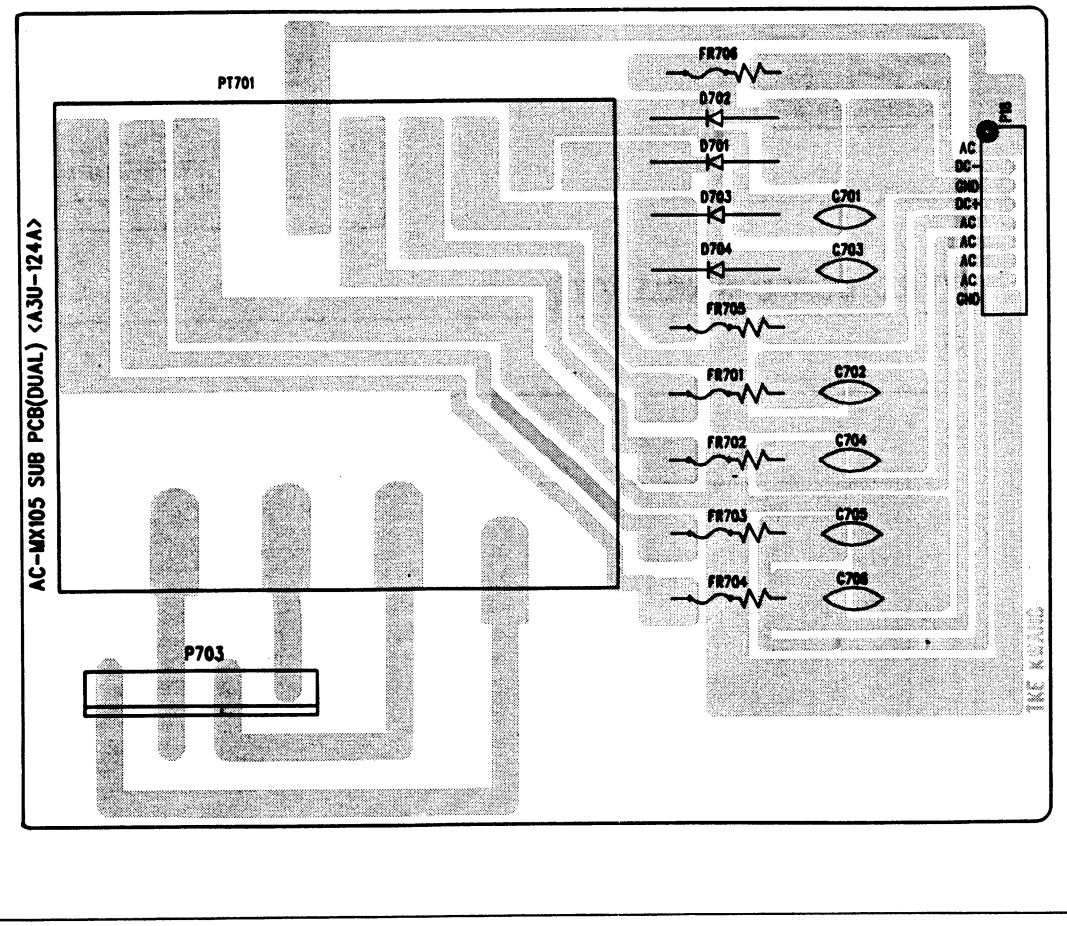


P/T P.C. BOARD (SINGLE VTG.)

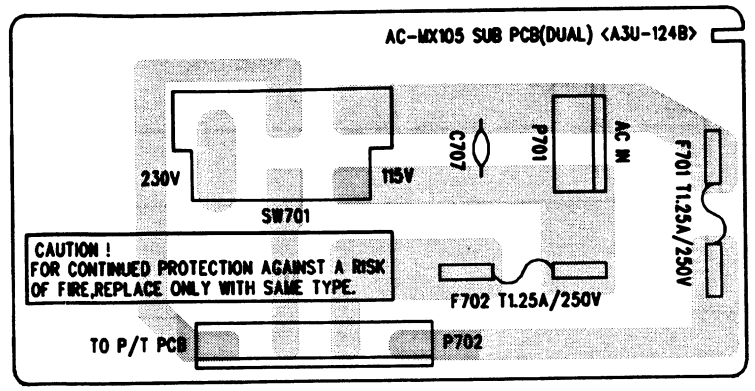


IV. P.C. BOARDS (BOTTOM VIEW)

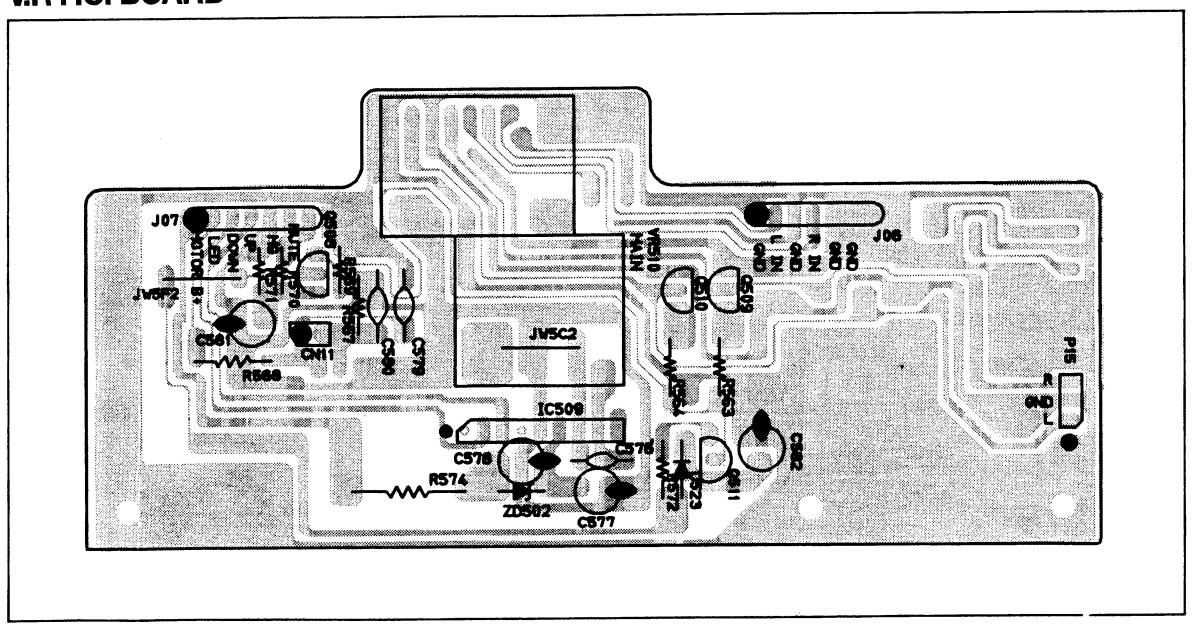
P/T P.C. BOARD (DUAL VTG.)



VTG. SELECTOR P.C. BOARD



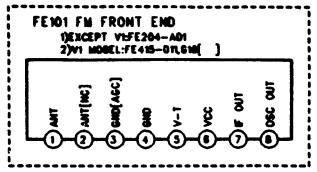
V.R P.C. BOARD

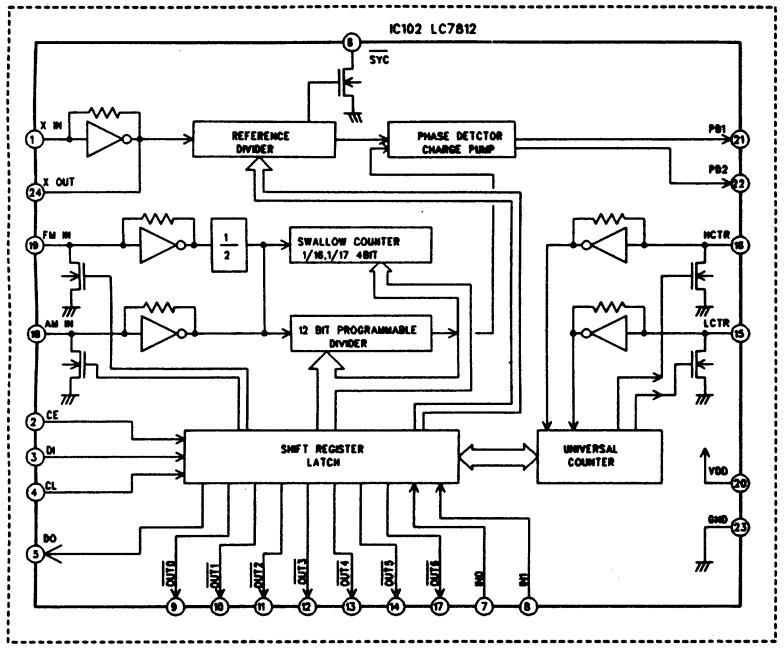


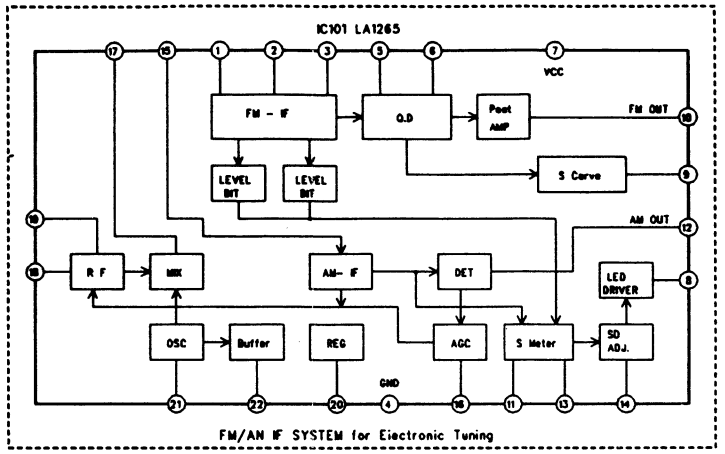
V. INFORMATION OF ICS MI-COM (MAIN BLOCK)

TUNER

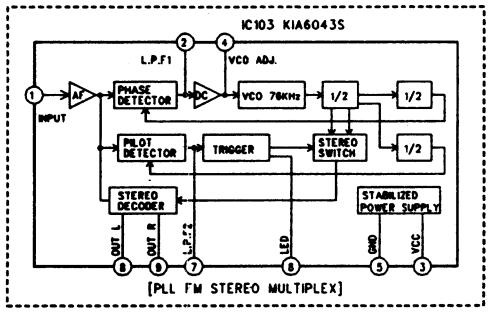
FE101 FM FRONT END
(EXCEPT V:FE204-A01
2)V1 MODEL:FE415-DTL8(M[ ])





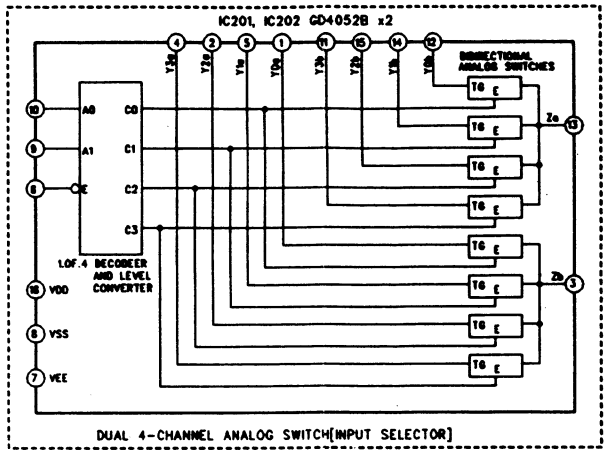


FM/AM IF SYSTEM for Electronic Tuning



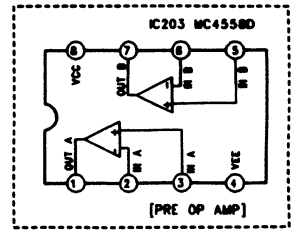
[PLL FM STEREO MULTIPLEX]

INPUT SELECTOR



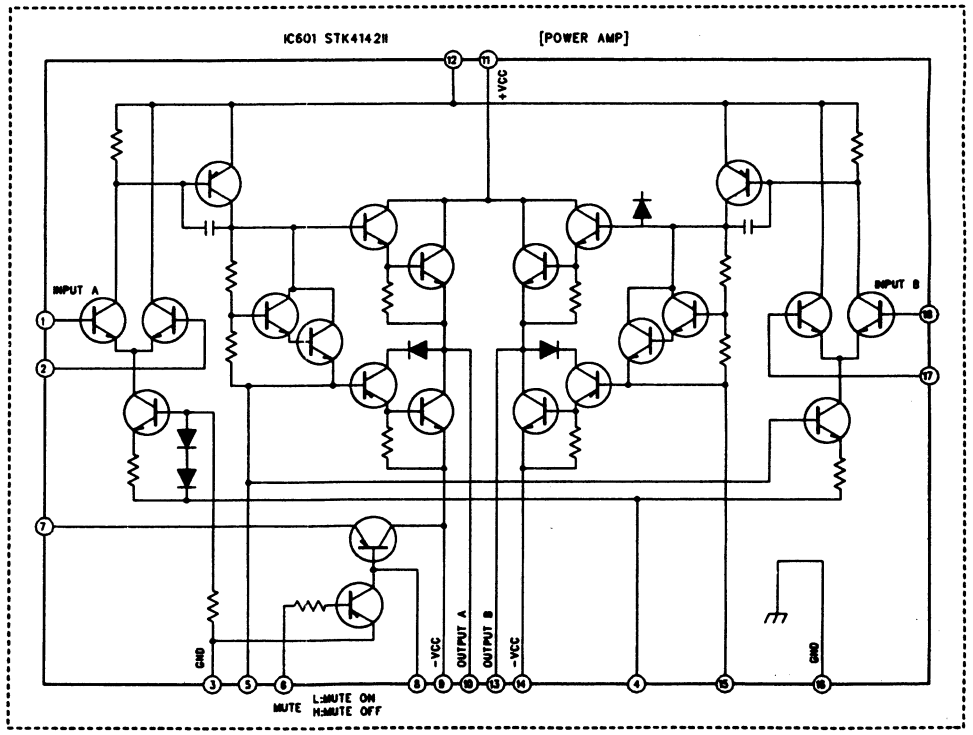
DUAL 4-CHANNEL ANALOG SWITCH[INPUT SELECTOR]

PHONO

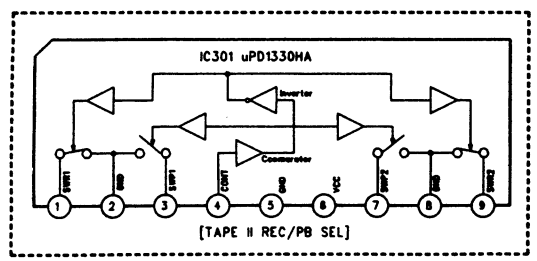


[PRE OP AMP]

AMP



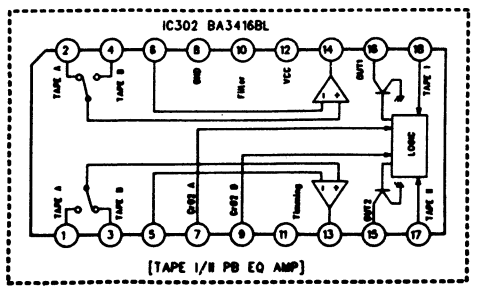
TAPE



[TAPE II REC/PB SEL]

NO.4 CONT.

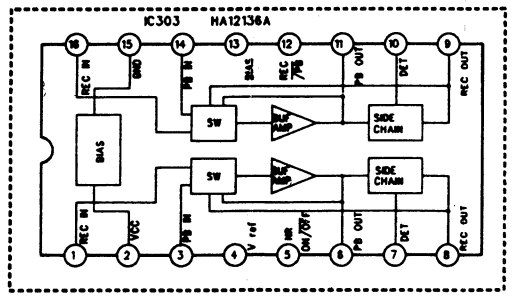
H	REC
L	PLAY



[TAPE I/II PB EQ AMP]

CONTROL

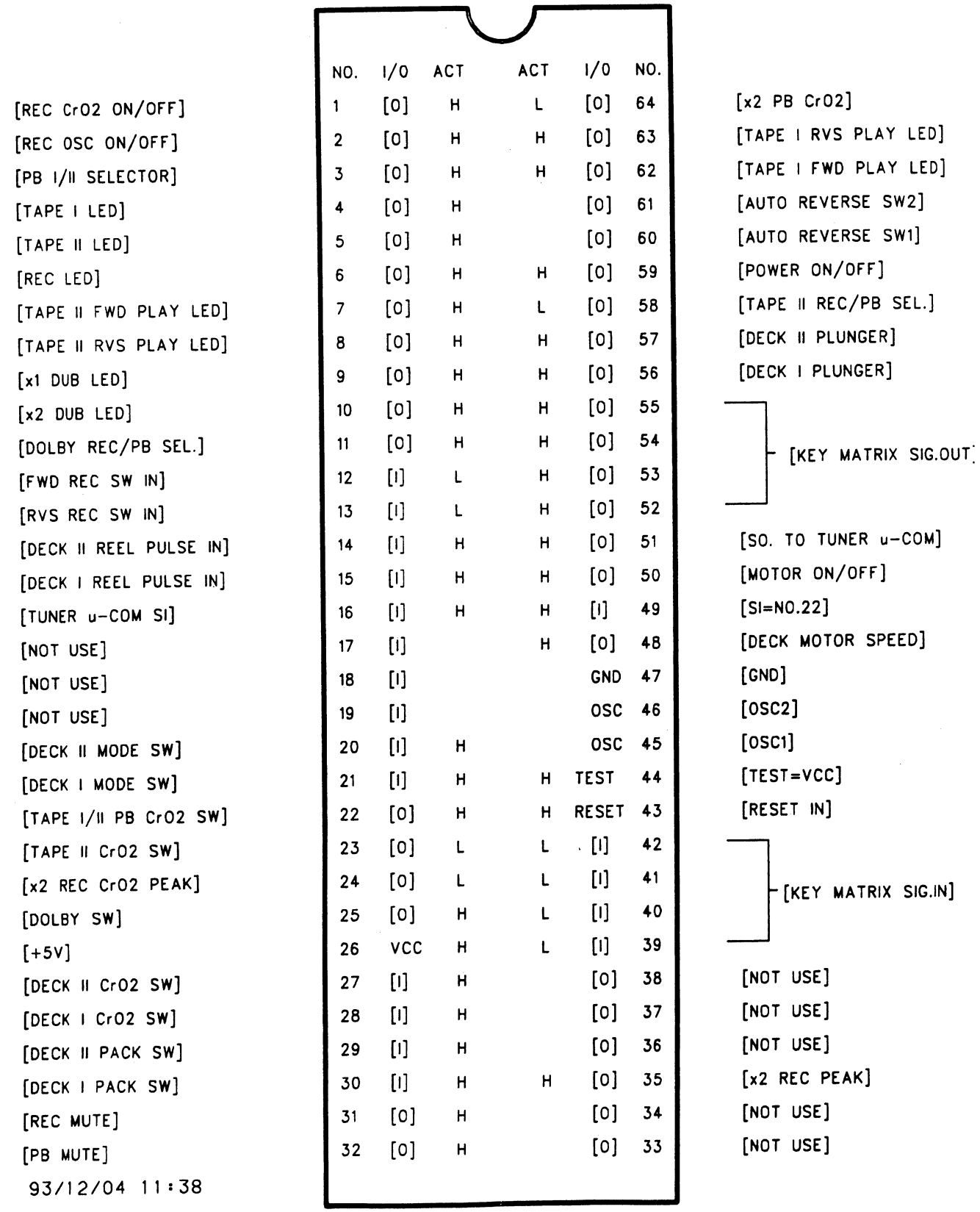
No	7,9	18
H	NORMAL	TAPE A
L	CrO2	TAPE B



CONTROL

No	5	12
H	NR ON	REC
L	NR OFF	PLAY

V. INFORMATION OF ICS MI-COM (DECK μ -COM BLOCK)



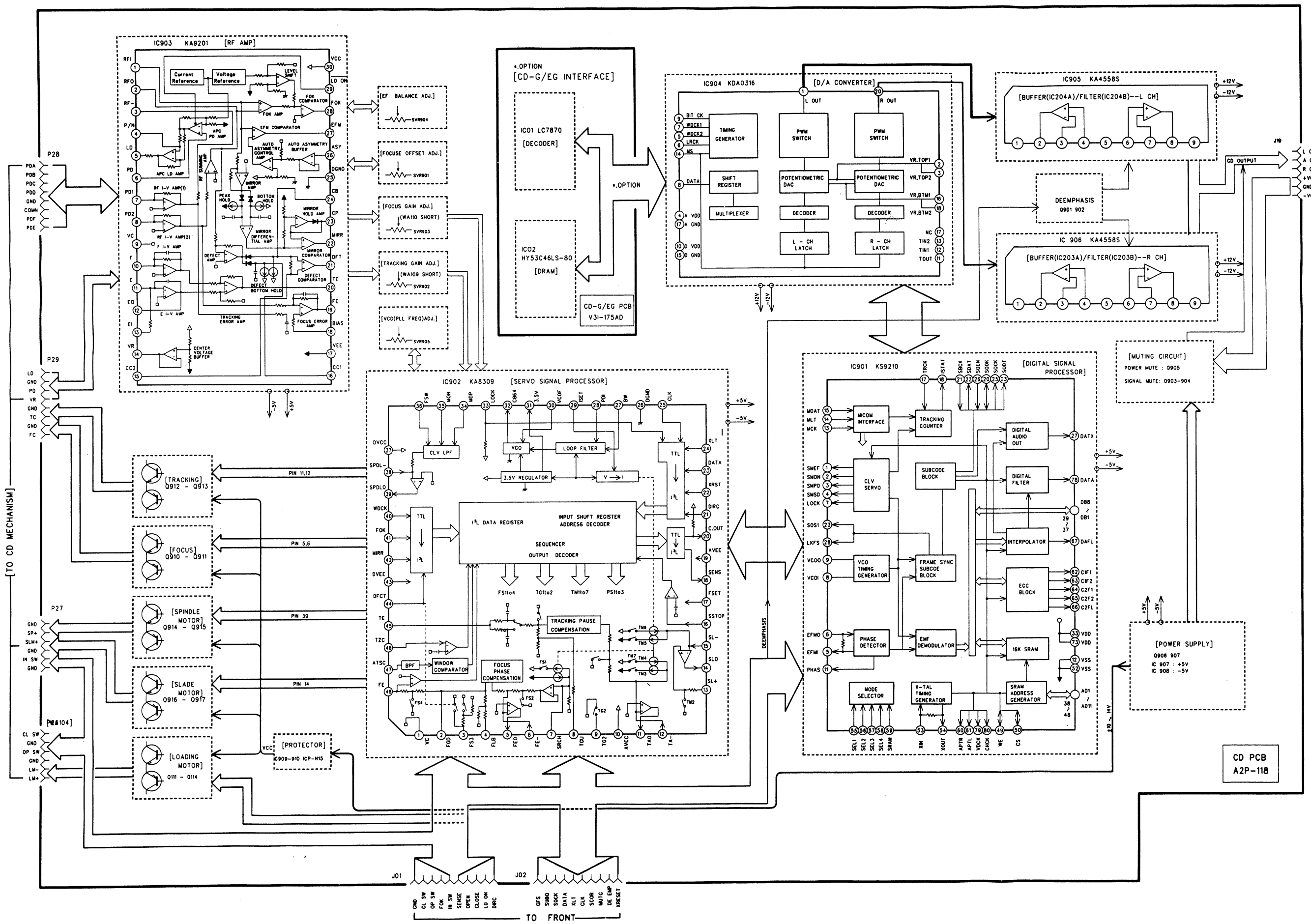
KEY MATRIX TABLE

KEY	KRI 0 (39)	KRI 1 (40)	KRI 2 (41)	KRI 3 (42)
KRO 0 (48)	FWD PLAY(I)	RVS PLAY(I)	REC/PAUSE	
KRO 1 (49)	F.F (I)	STOP (I)	CD SYNC	x1 DUB
KRO 2 (50)	RWD (I)	FWD PLAY(II)	TAPE I	x2 DUB
KRO 3 (51)	RVS PLAY(II)	STOP (II)	TAPE II	AUTO MUTE

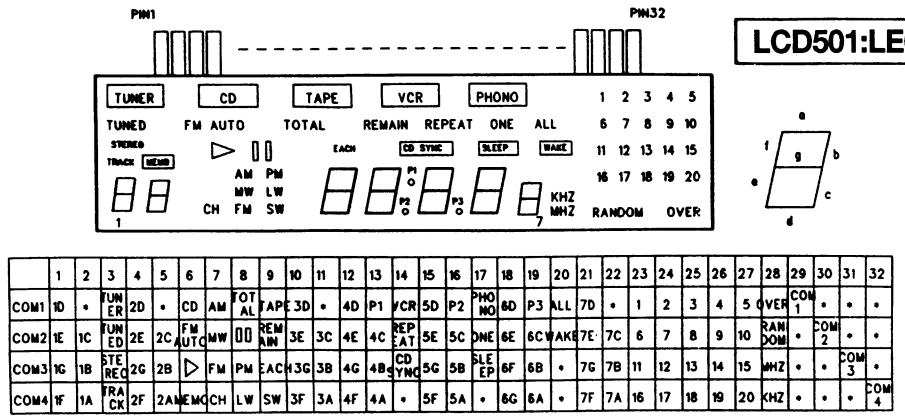
AUTO REVERSE MODE

D12 (60)	D13 (61)	OPERATING
0	0	ONE WAY
0	1	ONE CYCLE
1	1	FULL AUTO REVERSE
1	0	ELSE

V. INFORMATION OF ICS MI-COM (CDP BLOCK)



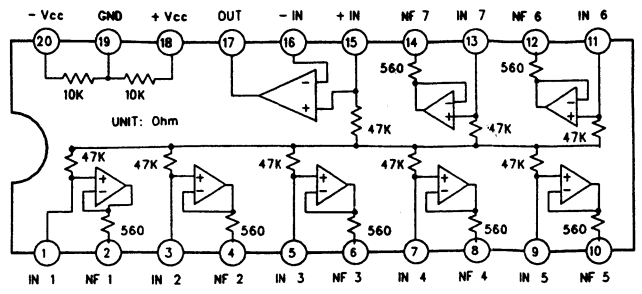
V. INFORMATION OF ICS MI-COM (FRONT AND REMOCON BLOCK)



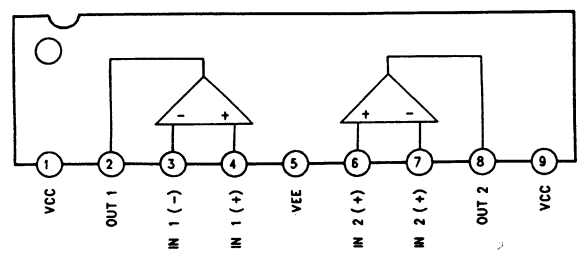
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
COM1	1D	•	TUNER	2D	•	CD	AM	TOTAL	TAPE	3D	•	4D	P1	VCR	5D	P2	PHONO	6D	P3	ALL	7D	•	1	2	3	4	5	OVER	COM 1	•	•	•
COM2	1E	1C	TUNED	2E	2C	FM AUTO	MW	▯▯	REMAIN	3E	3C	4E	4C	REPEAT	5E	5C	ONE	6E	6C	WAKE	7E	7C	6	7	8	9	10	RANDOM	•	COM 2	•	•
COM3	1G	1B	STEREO	2G	2B	▷	FM	PM	EACH	3G	3B	4G	4B	CD SYNC	5G	5B	SLEEP	6F	6B	•	7G	7B	11	12	13	14	15	MHZ	•	•	COM 3	•
COM4	1F	1A	TRACK	2F	2A	MEMO	CH	LW	SW	3F	3A	4F	4A	•	5F	5A	•	6G	6A	•	7F	7A	16	17	18	19	20	KHZ	•	•	•	COM 4

LCD501:LE0716-AP

IC505, 506:M5229P



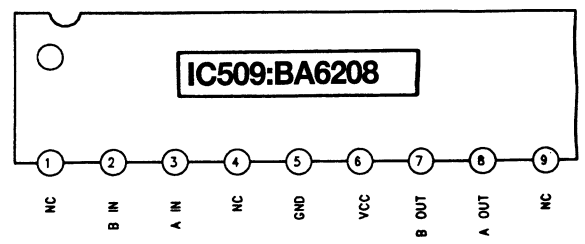
IC507, 508:KA4558S



TRUTH TABLE

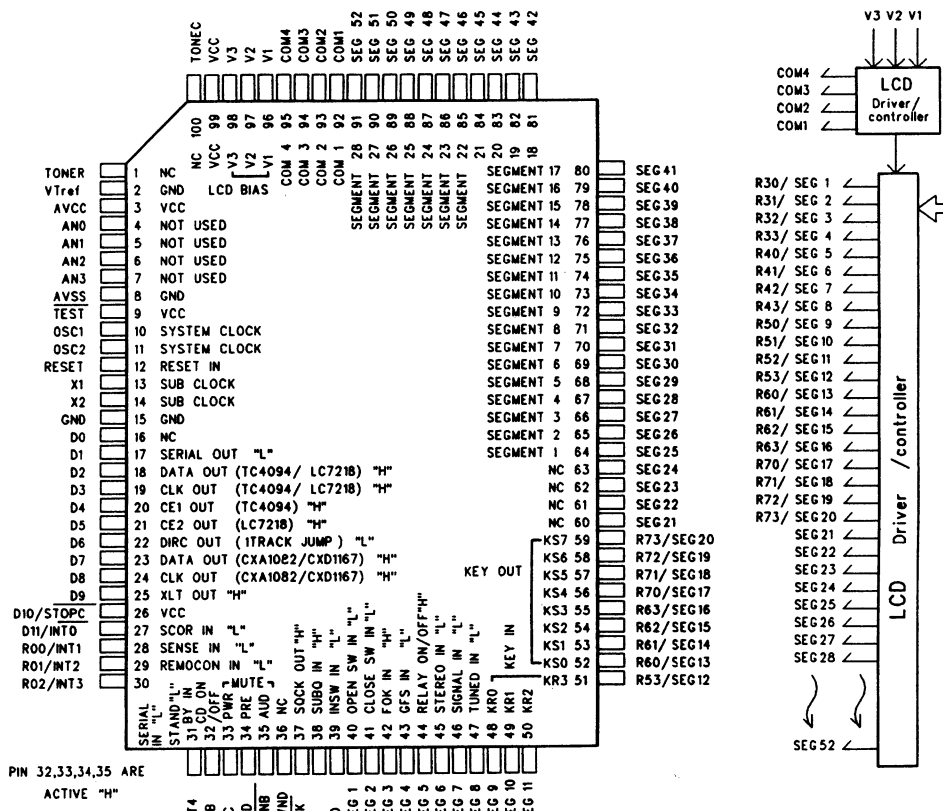
A IN	B IN	A OUT	B OUT
1	0	H	L
0	1	L	H
1	1	L	L
0	0	OPEN	OPEN

IC509:BA6208



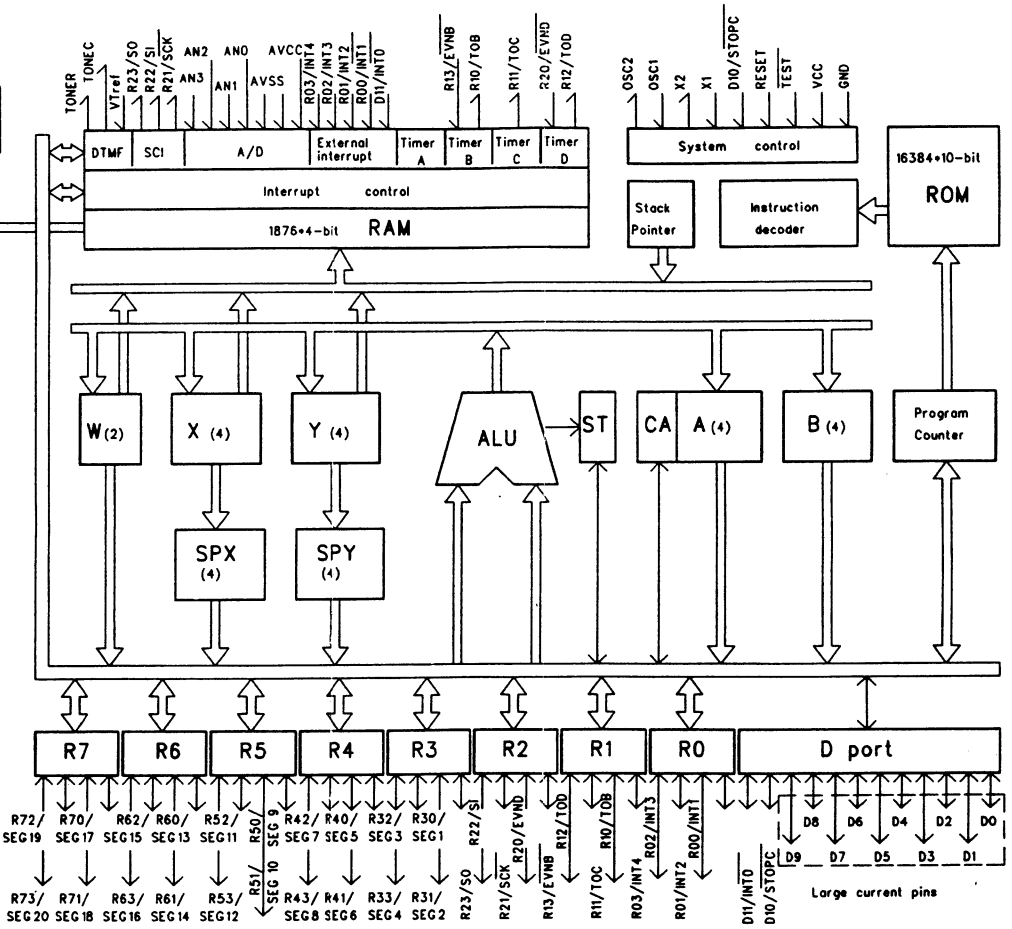
Pin Arrangement

"H" is active H
"L" is active L

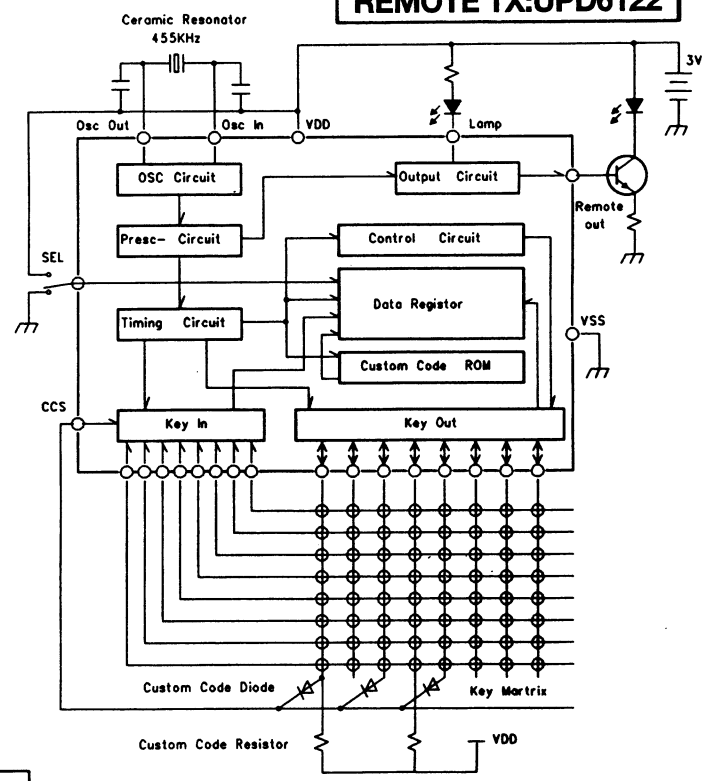


IC501:HD404629

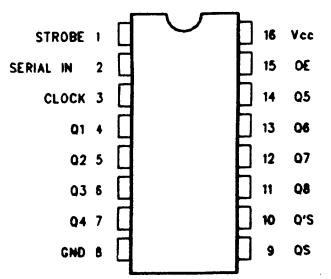
BLOCK DIAGRAM



REMOTE TX:UPD6122



IC503, 504:TC4094



	IC503		IC504	
		Act		Act
Q1	VR UP OUT	H	LD OPEN OUT	H
Q2	VR DOWN OUT	H	LD CLOSE OUT	H
Q3	VR LED OUT	H	EMPHASYS OUT	H
Q4	STEREO OUT	H	DECK RESET OUT	H
Q5	NC		LASER OUT	H
Q6	FUNC A OUT	H	DSP RESET OUT	H
Q7	FUNC B OUT	H	NC	
Q8	FUNC C OUT	H	NC	

TRUTH TABLE

CK	OE	ST	SI	PARA OUT		SERI OUT	
				Q1	Qn	Qs	Qs
↑	H	H	L	L	Qn-1	Q7	NC
↑	H	H	H	H	Qn-1	Q7	NC
↑	H	L	•	NC	NC	Q7	NC
↑	L	•	•	Z	Z	Q7	NC
↑	H	•	•	NC	NC	NC	Qs
↑	L	•	•	Z	Z	NC	Qs

IC502:RPM-676CBR-L